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INFORMATION PLEASE
ALMANAC
1959

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Editor

DAN GOLENPAUL

Foreword

The 1959 edition—the thirteenth in our annual series—offers the greatest advance in our aim to provide timely, interesting, and important reading material.

Although the reference content of the Information Please Almanac has not been reduced, the greatest emphasis of the 1959 edition is on subjects that are related to daily news headlines and active personal and social interests.

We have successfully performed what we believe was a formidable task. In our section "World Politics Today," we give the most up-to-date story of 82 countries of the world in addition to a background history of these countries.

Willy Ley, the outstanding space expert, again contributes a comprehensive story on the success, failure, and promise of moon travel.

We are proud to present a new first in our section, "Follow the Music," by Irving Kolodin, music editor of the "Saturday Review" and annotator of the New York Philharmonic, which we are confident will increase the pleasure of record-listening for you.

Another major feature included in this edition, which should be of considerable value to our readers, is an authoritative and interesting section on "Your Health and Long Life."

All of the articles listed here will make good and informative reading. We urgently suggest that you read all of these illuminating articles before you put the Almanac on your shelf for occasional reference.

We are very grateful for our readers' response in spotting errors in the 1958 edition and we should like to repeat the following paragraph used last year:

"We like to think ours is the perfect book since we have gone to great pains to avoid errors. All material is carefully scrutinized many times. You, though, may spot an error that everybody missed; if so, we would like to hear about it. We promise to correct the error and this, we gratefully advise, will be your only reward."

Comments on what sections and material you find interesting would also be welcome. Your opinion will help us produce the perfect book for your requirements.

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OPERATION NEWS

Past—Present—Future

Informed citizens are the strength of the nation. Only an informed people can make the necessary right decisions. Time and time again the people have demonstrated that they were better qualified to meet issues and make decisions than their government.

To be informed there is no substitute for reading and study. Publishers, in every media, do a good job of keeping us informed. Our daily newspapers are, in a sense, our contact with the world. It is essential to make the reading of newspapers an important habit for the entire family.

To help you get more out of your newspaper reading, we have designed and developed "Operation News." This section provides you with background on important news stories.

We strongly urge you to use our "Operation News" section: check the table of contents below. Here we deal with the most vital questions you will be reading about in the newspapers for many months to come. We suggest you keep the INFORMATION PLEASE ALMANAC handy when you are reading a newspaper. You will definitely find it helpful.

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LIGHT AND SERIOUS TOUCHES OF 1958

by MARCUS DUFFIELD

JANUARY 1958

AS THE BABY New Year began, the Census Bureau came through with startling baby news. One had been born every $7\frac{1}{2}$ seconds in 1957, so we started 1958 with 3 million more population. Well, we needed 3 million new little customers for baby carriages and diapers, to give a boost to our recession-stricken economy. Rueful stock-market investors, making a New Year's check on how they were getting along, found that on the average they had suffered in 1957 a paper loss of one-fifth of their dollar values. . . . However, new ideas always were bobbing up, and who cared if some of them were a bit cock-eyed? You could walk on water, if you felt so inclined, with a new product put out by a Massachusetts firm—water shoes named "Ocean Strollers." Or, if you happened to be a skinny guy, you could buy "Pool Pacers." And for those who wanted to avoid water, a New York firm brought out transparent plastic pants for men. You wore them over your regular pants, of course, fitting them a raincoat for legs. . . . Statistic for the month: 6,000 dog bites invaded the legs of mail carriers in 1957. The Post Office got annoyed and ruled that if your dog has an insatiable appetite for mailmen's legs, you darn well pick up your own mail at General Delivery.

FEBRUARY 1958

A SIGH OF RELIEF swept the nation and the free world. Russia wasn't the only country which could fire a satellite into orbit around the earth. It had been four months since Russia's Sputnik I, and three months since Sputnik II. Now, at last, Sputnik had a comrade in the heavens—a miniature moon named Explorer, sent up by the United States Army. We could do the trick, too. . . . On the ground, "rocket fever" was sweeping the teen-age set in our country. Kids were building and firing their own rockets. Some fizzled, some exploded (occasionally with dire results) and a few soared into the sky. In Houston, Texas, a group of high-school boys sent a \$10 rocket two miles high at a speed of 700 miles per hour. . . . We were getting so science-minded that International Business Machines brought out a mechanical monster that knew history. It was asked what happened in A.D. 30, and it spit out the answer in two-thirds of a second: "Salome asked for and obtained the head of John the Baptist." . . . Moreover, you could buy your toothpaste, or honey, or syrup in

cans containing a speck of nitrogen so they would shoot the stuff at you in a polite way.

MARCH 1958

AS WE APPROACHED spring, the women went mildly crazy (in the opinion of their menfolk). They wore dresses shaped like gunny sacks, which most men felt were more suitable for enclosing potatoes than for the female form. Then there were variants such as trapezes and chemises, which also gave rise to male maleases. Wrote fashion expert Tobe: "My own little nieces and the daughters of my friends all tell me that their social status at school is now determined by how many chemise dresses they have." . . . And speaking of the styles of the 1920's, there was an effort to revive the black velvet band around the forehead. Tiffany's brought out a model studded with diamonds from ear to ear—a real bargain at around \$175,000. . . . But good old Montgomery Ward stuck to the practical. Its spring catalogue offered farmers a three-pound package of 5,000 bees, listed as being "strong, gentle, easy to handle." No drones, fertile queen bee included, all for \$5.45. . . . In Russia, Nikita S. Khrushchev showed his practical side this month. He fired Marshal Nikolai A. Bulganin as Prime Minister. "Our dear Nikita," as he was called in the Supreme Soviet, took over the job as heir to Stalin.

APRIL 1958

GREAT DEBATE of the month: Are U. S. automobiles becoming mechanized mastodons, gaudy with chrome? "Sillier and bigger," commented Walter Reuther, president of the United Auto Workers. Said Harvard Economist Sumner Slichter: "Weird collection of headlights, fins, tails, wings." Maybe they were right, for small, simple European cars were flooding into the American market as never before. . . . Another question: Should the Army have drafted Elvis Presley, rock-'n'-roll idol, as a \$78-a-month rookie and made him trim his famous locks and leave behind his four Cadillacs, his Lincoln and his singing career? His manager said it would cost the government \$500,000 a year in lost income tax; but the Army just didn't care. . . . A devotee of much more serious music caused an international stir. Right in the midst of the East-West bickering over a summit conference, a 23-year-old pianist from Texas, Van Cliburn, went to Moscow and walked off with first prize in the Soviet Tchaikovsky Festival, in which 50

planists from 19 countries were entered. . . . Here at home, cats came into their own. The Animal Insurance Co. of America offered life insurance on pedigreed felines (no lions, tigers, jaguars need apply) in amounts ranging from \$100 to \$13,000.

MAY 1958

THAT RECESSION still was haunting us. Unemployment was over 5 million. Eminent men were urging tax cuts to give the economy a shot in the arm, but Eisenhower said no. . . . Among hardest-hit cities was Detroit, where industry was down 33% in the first four months of the year; passenger-auto output was 875,000 below comparable 1957 date. Detroit radio and TV had a forty-five-voice chorus singing over and over, day after day: "Buy days mean pay days. And pay days mean better days. So buy! Buy! Something you need today!" . . . The recession caused a slowdown in marriages—down about 10% below a year ago—which was bad news for the housing industry, furniture, etc. . . . Yet there were odd bright spots. Sales of snuff were moving up; there were some sixty brands of snuff as compared with forty-odd brands of cigarettes, and American users of snuff were estimated at a record four million. . . . Also happy was a power-lawnmower company which reported that American men were getting lazier and lazier; its sales of mowers with seats shot up 44% over a year ago. . . . And in case you really had a hurry call to buy a pair of men's shoes for \$150, you could get them at the Foot-Joy Shop in New York City, plus tax. These shoes were made from matched baby alligator skins, the poor little devils.

JUNE 1958

AN ACTOR we knew before strode back onto the international stage—none other than the arrogant, temperamental Gen. Charles de Gaulle, who had been the great leader of the Free French in World War II. Once more he was taking charge of France—this time to save it from civil war. The free world was worried lest he make himself a dictator. But he did not; he pulled France through its gravest post-war crisis. . . . At home, an odd actor named Bernard Goldfine came on the stage, much to the embarrassment of Sherman Adams, the Assistant to the President. It came out in a Congressional investigation that Adams' old friend Goldfine, a Massachusetts tycoon in textiles and real estate, had lavished presents upon him—hotel bills paid, vicuña for a coat, a \$2,400 rug. The question was: Why? Surely not for interceding with Federal

regulatory agencies in Goldfine's behalf? Said Eisenhower about Adams: "I need him." If Goldfine had only known it was on the market, he might have given Adams a jeweled gift: a gem-ornamented pillbox with a built-in musical alarm that reminds you in soothing tones that it is time to take your tranquilizer.

JULY 1958

A MACABRE QUALITY crept into our entertainment in this summer of 1958. Top of the best-seller book list was *Anatomy of a Murder* by Robert Traver, a harrowing story of a murder trial. . . . A movie called *The Screaming Skull* had a prologue in which the lid of a coffin rose, labeled "This is for you"; and the film producer kindly guaranteed free burial service to anyone in the audience who died of fright. Another movie offered a \$1,000 life-insurance policy against death by fright. . . . As for television, the National Association for Better Radio and Television glued its eyes on TV for one week and saw 161 murders, sixty so-called justifiable homicides, eighty-three robberies, fifteen kidnappings, seven attempted lynchings and six dynamitings. This was 500% more killings than in the association's survey of a 1952 week. And more killings were to come, inasmuch as twenty-two Westerns were scheduled for the networks in the autumn as compared to sixteen last year.

AUGUST 1958

POPPING BACK and forth to Europe in this vacation season were more American tourists than ever before invaded Europe—600,000, or 10 per cent more than last year. And if any of them wanted to bring back parakeets (an estimated 8 million Americans do keep them as pets), they had good news of a monumental discovery. Seems you can feed the birds seed treated with an antibiotic and you won't catch psittacosis. . . . Most luxuriant racketeer testifying before Senate investigators was Anthony Acado (Capone mob), whose home outside Chicago has two bowling alleys, a pipe organ, baths with gold faucets, and for himself a \$10,000 bathtub carved from a single piece of Mexican onyx. . . . Fashion craze of the month for coeds—tights called leotards which give you a leggy look. A Detroit department store sold out its entire stock of 1,000 leotards in the first week, and Boston's Filene's stocked them on every one of its seven selling floors. Craze for the younger set—"hula hoops." Red plastic, about a yard in diameter. You don't roll them; stick 'em around your middle and make

frantic wiggles like Gilda Gray used to, and they will spin around you miraculously without falling.

SEPTEMBER 1958

SEEMS WE are never quite satisfied with our economy. Last spring we were bemoaning the recession and wondering if we were heading for a real depression. Now, presto! we found ourselves in the middle of a boom again, and Eisenhower's economic adviser solemnly warned the nation: "Inflation is the problem now." Always something to worry about. . . . Nor could we ever be happy about the international situation. Last month it was the flare-up in the Middle East, with U. S. troops going into Lebanon. This month it was Communist China's attack on Quemoy, with U. S. warships hovering in the background. Would there be war, we wondered. . . . And there was the scandal of the TV quiz shows, with one of them fired from the networks for allegedly feeding answers to contestants and other quizzes coming under investigation. . . . High on the non-fiction best-seller list was Harry L. Golden's book, "Only in America," and he disclosed that twenty-five years ago he had served a Federal prison term for running a bucketshop. Well-wishers from all over the country wired him messages of confidence, and his lecture offers shot up.

OCTOBER 1958

A MUSHROOMING new business threatened to make the \$10 bill obsolete. All you had to do was flash a little credit card and say, "Charge it," and feel like a king. It started with the Diners' Club, whose card gave you moneyless access to restaurants and night clubs all over the nation. Then the American Express Co. stepped into this never-never land of credit cards. Now you could flash your card and get auto parts, or flowers at the florist's, or books at Brentano's, or a part-time secretary from the Kelly Girl Service. . . . Another booming business was in dog foods, because the United States barking population had increased to 26 million, a jump of 35% in ten years. Now dog foods were coming specialized. If your mutt is overweight, buy Obesodiet to cut down his calories; if he has kidney trouble, try Nephrodiet; if he is an old, old hound get him Geriodiet. . . . New this month was jet plane passenger service across the Atlantic. Britain's BOAC was first with weekly flights. Right on its heels came Pan American with daily jets over the ocean, and Pan Am was booking more than 3,000 passengers for the winter season—four times as many as a year ago. The initial flight with 114 passengers took 8 hours, 20 minutes, as contrasted with 12 or 13 hours.

HEADLINE STORIES OF 1958

GENERAL CHARLES DE GAULLE

"WE ARE PERHAPS on the brink of civil war," said Pierre Pfimlin on May 14, 1958, as he took office as France's twenty-fifth Premier since the end of the war. A few hours earlier, French military officers in Algeria had seized control from the civilian administration named by the government in Paris. The fear was that this military coup might extend to France itself.

The coup by Frenchmen in Algeria grew out of the frustrations of an unsuccessful three-year semi-war against a rebellion by native Moslem rebels who demanded independence. More than 5,000 French troops had been killed, and the conflict was costing \$5 million a day, and still the native rebels were on the warpath. The French in Algeria—both civilian and military—feared a compromise with the rebels which would undermine French rule.

The leaders of the Algerian coup demanded that Gen. Charles de Gaulle take power in France. (He had been a virtual dictator in the closing days of the war.)

Said de Gaulle: "I hold myself ready to take over the powers of the Republic."

He stipulated, however, that he must be voted virtually dictatorial powers by the National Assembly (parliament). De Gaulle did take power as Premier, and in an ostensibly legal way. The National Assembly voted him in on June 1—obviously acting out of fear of a military coup d'etat or civil war or chaos. At his demand, it voted itself a suspension of lawmaking until October so that he could rule by decree.

Also at de Gaulle's insistence, the National Assembly turned over to him its power to prepare a revision of the French Constitution. This he proceeded to do. His new Constitution was designed to avoid the repeated Cabinet upsets that had kept France in turmoil. It verged on the American system of government, with a separation and balance among the executive, legislative and judicial branches.

De Gaulle's new Constitution was approved overwhelmingly in the referendum

of Sept. 28, 1958. This meant that the French Fifth Republic would be set up to replace the Fourth Republic, which came into being in Dec., 1946. It also meant that de Gaulle would govern virtually by decree for the next few months until a new Parliament could be elected.

SHERMAN ADAMS

THERE WAS an oddly named House Subcommittee on Legislative Oversight which was busy in the spring and summer of 1958. Purpose of the investigation was to find out how the many independent agencies of the U. S. government were functioning—agencies, for example, such as the Federal Trade Commission, the Federal Communications Commission, and the Securities and Exchange Commission, all of which wield enormous power over the nation's economy. The basic question was whether they operated with complete honesty and independence.

Sherman Adams was the Assistant to the President, meaning he was top man in the Eisenhower White House Staff operating the Federal Government. His name was brought up in the House inquiry. He formerly had been Republican Governor of New Hampshire, and his square New England chin was regarded as a symbol of probity.

The House investigators disclosed friendly relations between Adams and Bernard Goldfine, a native of Russia, who acquired wealth in Boston in the textile and real-estate businesses. On the House witness stand, Adams acknowledged that Goldfine had on occasion paid his hotel bills in New York, Boston, and Plymouth, Mass. The total came to more than \$2,000.

Also, Goldfine had given Adams the material for a vicuña coat, and a \$2,400 oriental rug for his apartment in Washington. Adams said the rug was just a loan,

and was to be returned when he left Washington.

Goldfine had had difficulties with two ental rug for his apartment in Washington. Federal agencies—the Securities and Exchange Commission and the Federal Trade Commission. Adams acknowledged that he had communicated three times with Federal agencies on cases involving Goldfine. Adams insisted that he had not sought to exert influence. Regarding the gifts, Adams asserted that he and Goldfine had been close friends for fifteen years and that exchange of gifts had marked that friendship.

President Eisenhower, at a news conference in June, conceded that Adams had been "imprudent" in acceptance of gifts that might be "misinterpreted." But the President backed Adams. "I respect him," said Eisenhower, "because of his personal and official integrity. I need him."

In August, the House of Representatives voted to cite Goldfine for contempt for refusing to answer questions about his financial affairs. This did not pertain to his friendship with Adams.

The Maine elections in early September gave the Republicans an unusually severe defeat. Alarmed Republican leaders urged that Sherman Adams be dropped, lest the party be harmed in the November Congressional elections. Adams resigned on Sept. 22, telling the nation by television that he had "done no wrong." President Eisenhower accepted the resignation "with sadness."

NIKITA KHRUSHCHEV

IT WAS ON March 6, 1953, that the Soviet Union announced the death of its dictator, Josef Stalin. The world speculated briskly on who would succeed him. Malenkov? Molotov? Beria? Bulganin?

The world speculation underestimated the willness of Nikita S. Khrushchev, a former peasant from near the Ukraine, who once worked in a coal mine.

One by one, Khrushchev out-manuevered the top men of Soviet Russia. Beria was executed. Malenkov and Molotov were banished to remote and inconsequential jobs. Bulganin became Premier.

All along, Khrushchev was praising what he termed "the principle of collective leadership" as contrasted with what he denounced as "the cult of the individual"—meaning one-man dictatorship like Stalin's.

Nevertheless, on March 27, 1958, Khrushchev managed to oust and banish Bulganin and to succeed him as Premier. Thus Khrushchev assumed the mantle of Stalin.

But Khrushchev inherited plenty of troubles—unrest in satellite Poland, sullen gloom in crushed Hungary and a renewal

of the quarrel with Tito's independent Communist regime in Yugoslavia.

There were indications that Khrushchev also was under pressure from Mao Tse-tung, leader of Communist China. For the first eight months of 1958, Khrushchev had been badgering the West to hold a

"summit" conference of heads-of-government. The West finally agreed in August to hold such a conference under the aegis of the United Nations Security Council. Khrushchev agreed. Then he made a secret trip to Peiping to talk to Mao. On returning to Moscow, he abruptly reversed himself and rejected the "summit" talks.

BORIS PASTERNAK

BORIS PASTERNAK, 68, was known as one of Russia's most eminent poets. He wrote a novel, *Doctor Zhivago*, which was critical of the Soviet regime. For example, the novel's central character commented: "The great majority of us are required to live a life of constant, systematic duplicity. Your health is bound to be affected if, day after day, you say the opposite of what you feel, if you grovel before what you dislike. . ."

The Soviet Union did not permit publication there of Pasternak's novel, but it was smuggled out and published in the U. S. and other countries.

Doctor Zhivago won the 1958 Nobel Prize for literature, awarded by the Royal Swedish Academy and carrying a monetary

prize of \$41,250. Pasternak cabled the Academy saying: "Immensely thankful, touched, proud, astonished, abashed."

Then a storm of abuse broke around him in the Soviet Union. There were demands that he be exiled.

Thereupon, Pasternak cabled Stockholm his rejection of the Nobel Prize. He also wrote a pathetic and apologetic letter to Khrushchev: "Whatever my mistakes and errors might have been," he said, "I could not imagine that I would find myself in the midst of a political campaign which has been fanned around my name in the West." He begged not to be exiled, writing: "To go beyond the frontier of my own land to me is equal to death."

ELECTION OF NEW POPE

POPE PIUS XII was born Eugenio Pacelli in Rome in 1876. He became the Pontiff of the Roman Catholic Church on Mar. 12, 1939. His selection was largely attributable to the fact that he had been a diplomat in the service of the Vatican, attaining the post of Secretary of State, and was therefore alert to world affairs.

Pius XII had two strokes of paralysis in the week beginning Oct. 5, 1958, and died Oct. 9. The College of Cardinals, reduced by vacancies and deaths to fifty-one, met on Oct. 25 to elect a new Pope.

Black smoke came out of the Vatican stove for ten ballots of the College of Cardinals. On the eleventh ballot, Oct. 28, white smoke came out, meaning that the Roman Catholic Church had its 262nd Pope. He chose the name of Pope John XXIII. The name John has been the most popular in the annals of the Pontificate.

The new Pope, 77 years old on Nov. 25, 1958, was born thirty miles northeast of Milan into a family of modest farmers. He was Angelo Giuseppe Roncalli. He was

ordained a priest in Rome in 1904, served as an Italian army chaplain in World War I, and became a Cardinal in 1953.

Pope John XXIII has been a diplomat in the service of the Church and has had success in the field. From 1925 until late in 1944, he was the Vatican's diplomatic delegate in Bulgaria, then in Turkey and in France. In the last country, he was Papal Nuncio to Paris for eight difficult years at the close of World War II and afterward.

His associates say he has a quick mind, a quick smile, good health, and a determined character. He begins his reign later in life than any Pope in 228 years.

Less than twenty-four hours after his election, the new Pontiff broadcast an appeal to all rulers of the world today to work for peace. He spoke for twenty minutes in Latin. He asked God's help for those in countries where there is no religious freedom—an indirect reference to Communist-ruled nations.

SCHOOL SEGREGATION

MORE and more serious repercussions were developing from the Supreme Court's 1955 decision ordering integration of

Negroes and whites in the public schools. In 1957 Gov. Orval Faubus of Arkansas defied a Federal court order to let Negro students

into Central High School in Little Rock. President Eisenhower dispatched Federal troops to see that the Negroes were admitted, which they were.

Shortly before schools were to open in the fall of 1958, Faubus said he was determined again to keep Negroes out of the school. Quick legal moves brought the case before the Supreme Court, which met in a rare special session. On Sept. 12 it unanimously ordered admission of seven Negro students by Central High School.

Seven hours later Faubus closed all four high schools in Little Rock under laws that he had guided through the Arkansas state legislature, thus defying the Supreme Court. He was defying President Eisenhower, also, for on the same day the President issued a statement calling for compliance with the court ruling. "All of us know," he said, "that if an individual, a community, or a state is going continuously

and successfully to defy the rulings of the courts, then anarchy results."

Virginia, too, had laws requiring Gov. J. Lindsay Almond to close schools to avoid court-ordered racial integration. He closed six high schools.

Faubus planned to meet the situation by leasing the vacant public school buildings to a private corporation which would operate them on a segregated basis. This was held illegal by the Federal 8th Circuit Court of Appeals. And the Supreme Court ruled that "evasive schemes for segregation" of public schools were invalid, indirect attempts to "nullify" the Constitutional right of all children to integrated education. Little Rock's leasing plan was dropped.

By late October, a very small proportion of Little Rock students were attending segregated classes supported by private donations.

QUEMOY ISLANDS

ON AUG. 23, 1958, Communist China opened a fierce and prolonged artillery bombardment of the Quemoy Islands (known as Big and Little Quemoy) which lie in the Strait of Formosa some five miles off the Communist-held mainland of China. Thereby, Red China was risking a military clash with the powerful U. S. 7th Fleet in the Formosa Strait. It was soon to be reinforced by aircraft carriers and other war vessels, which made it the mightiest naval concentration in the world.

The background was this:

Congress had approved on Jan. 25, 1955, a resolution requested by President Eisenhower authorizing him to use armed force if necessary to protect Formosa and the nearby Pescadores Islands as being vital to our own defense interests. The Quemoy Islands were not mentioned, but the resolution was flexible in that the President was authorized to determine what "related positions" in the area needed to be defended.

After the Red bombardment opened up in 1958, President Eisenhower said that the Quemoy Islands "have increasingly become related to the defense of Formosa." The implication was that the United States would help defend them if necessary.

Whether the Reds intended to attempt invasion of the Quemoy Islands was not immediately clear. But their constant bombardment ringed the islands with shells so it was impossible to land adequate supplies. President Chiang Kai-shek had 90,000 of

this Formosa Nationalist troops on the Quemoy Islands and there were 40,000 civilians.

The United States helped the Nationalists by sending warships to convoy their supply ships toward the Quemoy Islands, but our ships stayed 3 miles offshore, apparently to stay out of artillery range and minimize the danger of hostilities.

In September the United States and Red China opened talks about the Formosa situation. These were held in Warsaw through the respective Ambassadors to Poland.

The United States hoped to persuade both the Communist Chinese and the Formosa Nationalists to renounce the use of force in the Formosa Strait and cease firing. This would mean that President Chiang Kai-shek would have to abandon his dream of reconquering the mainland—which nearly everybody regarded as nothing but a dream, anyway. If a cease-fire took effect, the United States would advise Chiang to reduce substantially the number of his troops in the Quemoy Islands, which amounted to about one-third of his armed forces.

Secretary of State Dulles flew to Formosa in October to confer with President Chiang Kai-shek. The main result was a formal renunciation by Chiang of any intention to attempt the forceful reconquest of the Communist-held mainland.

Meanwhile, the Communist bombardment of Quemoy had become sporadic, with occasional "truces" voluntarily proclaimed by Peiping.

NEWS CHRONOLOGY OF 1958

JANUARY 1958

- 3 Sir Edmund Hillary reaches South Pole overland; first to do so in 46 years.
 - 12 Eisenhower asks Russia for outer-space peace pact banning missiles.
 - 13 Eisenhower budget calls for \$73.9 billion.
 - 13 United Auto Workers ask motor industry to share profits with employees and customers.
 - 15 Federal Reserve Board cuts stock margin requirement from 70% to 50%.
 - 23 Venezuela overthrows dictator, President Pérez Jiménez, after heavy street fighting.
 - 23 James R. Hoffa takes presidency of Teamsters' union after court battle.
 - 25 Robert R. Young, 60, board chairman of New York Central RR, shoots self to death in Palm Beach.
 - 27 U. S. and Soviet Union sign agreement to increase cultural exchanges.
 - 31 Army's Jupiter-C rocket fires first U. S. earth satellite, Explorer I, into orbit.
- DIED:* 25—Robert R. Young, 60.

FEBRUARY 1958

- 1 Egypt and Syria merge into one nation—United Arab Republic.
 - 10 House subcommittee investigating Federal agencies fires its chief counsel, Dr. Bernard Schwartz. He charges "whitewash."
 - 14 Iraq and Jordan proclaim federation, uniting the two countries.
 - 15-16 Worst blizzard in two years hits East Coast; death toll estimated at 170.
 - 19 Eisenhower asks \$3.9-billion foreign aid.
 - 21 Nathan Leopold, Jr., co-slayer of Bobby Franks in 1924, wins parole after 33 years in prison.
 - 26 Eisenhower says "It will take some time to stop the recession."
- DIED:* 13—Helen Twelvetrees, 50; 14—Georges Rouault, 86; 16—Joe Frisco, 68.

MARCH 1958

- 2 Yemen to join Egypt and Syria in United Arab Republic.
- 7 February unemployment was 5,173,000, highest in 16 years.
- 17 Navy rocket puts Vanguard I, 3¼-

pound earth satellite, in orbit; highest peak is 2,513 mi.

- 22 Mike Todd, film producer, killed in crash of his private plane in New Mexico.
 - 24 King Saud, of Saudi Arabia, yields governing authority to his brother, Crown Prince Faisal, who is pro-Nasser.
 - 25 Eisenhower asks Congress for temporary program of Federal payments to extend period of state unemployment insurance.
 - 26 Army puts in orbit Explorer III with Jupiter-C rocket.
 - 27 Khrushchev becomes Premier of Soviet Union as Bulganin resigns.
 - 31 Soviet government announces suspension of nuclear weapons tests; demands U. S. and Britain also halt testing.
- DIED:* 22—Mike Todd, 49; 28—W. C. Handy, 84.

APRIL 1958

- 3 Eisenhower presents Pentagon reorganization plan giving broader powers to Secretary of Defense.
 - 4 Actress Lana Turner's daughter, Cheryl, 14, stabs to death mother's boy friend, John Stompanato.
 - 6 Capital Airlines Viscount turboprop plane crashes in Michigan, killing all 47.
 - 8 Khrushchev, visiting Hungary, says Soviet Union will help crush any future satellite uprisings.
 - 9 Fidel Castro uprising in Havana against Batista is put down.
 - 14 Soviet Sputnik II, with dead dog, drops and disintegrates after about 2,370 trips in orbit around the earth.
 - 14 Van Cliburn, of Texas, wins first prize in Moscow international piano contest.
 - 15 8 paintings damaged in fire at New York's Museum of Modern Art.
 - 18 U.S.S.R. charges U. S. sends nuclear bombers flying toward its borders on false radar alerts.
 - 21 49 die as airliner and Air Force jet collide over Las Vegas, Nev.
 - 26 Baltimore & Ohio Railroad discontinues New York-Washington service after 68 years.
 - 29 United Arab Republic agrees to pay \$82 million to Universal Suez Canal Co. for nationalized canal.
- DIED:* 7—Elliot Paul, 67; 8—George Jean Nathan, 76; 15—Estelle Taylor, 58.

MAY 1958

- 2 Soviet Union vetoes in U. N. Security Council the U. S. proposal to patrol Arctic against surprise attack.
 - 7 New series of U. S. nuclear tests at Eniwetok disclosed as under way.
 - 8 Vice President Nixon stoned by Peru rioters led by Reds.
 - 15 Soviet Union sends into orbit 1½-ton Sputnik III.
 - 18 U. S. regains cone of Army Jupiter rocket in re-entry test.
- DIED:** 5—James Branch Cabell, 79; 8—Norman Bel Geddes, 65; 10—Lucien Lelong, 68; 14—Thomas L. Stokes, 59; 17—F. Hugh Herbert, 60; 18—Elmer Davis, 68; 19—Ronald Colman, 67; 27—Samuel Cardinal Stritch, 70; 29—Juan Ramón Jiménez, 76.

JUNE 1958

- 1 French National Assembly votes in Gen. Charles de Gaulle as Premier by 329-224.
 - 10 House investigators say Boston industrialist Bernard Goldfine paid hotel bills for Sherman Adams, chief Eisenhower aide.
 - 11 U. N. Security Council votes to send watch-dog team to Lebanon, beset by civil war. Lebanon says pro-Nasser Syrians aid rebels.
 - 17 Hungarian Justice Ministry announces execution of leaders of 1956 revolt, headed by Premier Imre Nagy.
 - 28 Cuban rebels kidnap 29 American service men from Guantanamo Navy base.
 - 30 Congress votes Alaska in as 49th state.
- DIED:** 9—Robert Donat, 53; 20—Herbert Bayard Swope, 76; 28—Alfred Noyes, 77.

JULY 1958

- 1 East-West scientists open conference in Geneva on detection of nuclear bomb tests.
- 9 Air Force fires Thor missile 6,000 mi. with mouse in nose cone. Cone returned to earth intact, but it and mouse were lost in Atlantic.
- 14 Pro-Nasser Army officers shoot King Faisal of Iraq and seize rule, proclaiming republic.
- 15 Eisenhower orders U. S. Marines into Lebanon at request of President Chamoun, who fears overthrow.
- 17 British paratroopers land in Jordan on request of King Hussein.
- 18 Russia vetoes in U. N. Security Council a U. N. armed force to patrol Lebanon, as requested by U. S.

- 22 85th Soviet veto in U. N. Security Council bars Japan's Middle East plan.
 - 26 U. S. fires into orbit Explorer IV satellite weighing 38.43 lbs.
 - 31 Lebanon crisis eased as army commander, Gen. Fuad Chehab, is elected President.
- DIED:** 5—Rachel Crothers, 78; 26—Ex-Sen. Eugene D. Millikin, 67; 27—Lt. Gen. Claire L. Chennault, 67.

AUGUST 1958

- 3 Khrushchev ends 4-day secret visit to Peiping.
 - 5 Khrushchev kills U. N. summit parley.
 - 8 U. N. General Assembly meets in special session on Middle East.
 - 8 U. S. atomic submarine *Nautilus* crosses top of world under North Pole.
 - 13 Eisenhower urges U. N. to set up Middle East "peace force."
 - 14 Worst single plane commercial air crash kills all 99 aboard KLM plane out of Shannon for New York.
 - 17 First U. S. moon rocket blows up after rising 10 miles in 77 seconds at Cape Canaveral, Fla.
 - 19 World's largest submarine, *Triton*, launched at Groton, Conn.; Navy's 8th nuclear submarine.
 - 21 U. N. General Assembly vote 80-0 in favor of Arabs' plan for peace in Middle East.
 - 22 Eisenhower offers 1-year suspension of U. S. nuclear-arms tests.
 - 23 Chinese Communists begin heavy shelling of Nationalist-held offshore Quemoy Islands.
 - 26 Alaska votes by big margin to become 49th state.
 - 27 Eisenhower hints U. S. will help defend Quemoy as part of defense of Formosa.
 - 28 Arkansas Legislature votes to close any school facing forcible racial integration.
- DIED:** 14—Frédéric Joliot-Curie, 58; 16—Wolcott Gibbs, 56; 22—Roger Martin du Gard, 77; 24—Johannes G. Strijdom, 65; 26—Ralph Vaughan Williams, 85; 27—Dr. Ernest O. Lawrence, 57.

SEPTEMBER 1958

- 6 U. S. 7th Fleet warships convoy Nationalist supplies to Quemoy.
- 8 Maine, first to vote, elects its first Democratic Senator, Edmund S. Muskie, and a Democratic Governor.
- 12 Supreme Court orders immediate racial integration in Little Rock high school; Gov. Faubus orders all 4 high schools closed.
- 13 Eisenhower asks Khrushchev to restrain Red China at Formosa.

- 15 43 known dead as part of New Jersey commuter train drops off open draw-bridge into Newark Bay.
- 15 U. S. opens talks in Warsaw with Red China about Formosa.
- 16 Charles Malik, of Lebanon, elected president of U. N. General Assembly.
- 17 6-hour Ford strike settled with worker benefits; 3-year pact.
- 18 Virginia has closed 3 schools to avoid integration.
- 22 Sherman Adams resigns as The Assistant to the President, denying any wrong-doing.
- 23 General Assembly bars Red China membership, 48 to 22.
- 23 Gen. Fuad Chehab assumes Presidency in Lebanon. Riots take 15 lives.
- 27 Little Rock, Ark., votes 3 to 1 against school integration.
- 28 France overwhelmingly approves de Gaulle constitution.
- 29 U. S. Supreme Court bars evasion of school integration.
- DIED:** 11—Robert W. Service, 84; 20—Denys Wortman, 71; 21—Mary Roberts Rinehart, 82.

OCTOBER 1958

- 2 General Motors follows Chrysler and Ford in signing 3-year union contract.
- 6 U. S. atomic submarine *Seawolf* surfaces after record 60 days under water.
- 7 Judge Potter Stewart, 43, of Ohio, named to Supreme Court to succeed retiring Justice Harold H. Burton.
- 9 Pope Pius XII dies at 82.
- 23 Nobel literature prize goes to Boris Pasternak, Russian writer critical of Soviet regime, for his novel *Doctor Zhivago*.
- 24 Chiang renounces use of force to reconquer Chinese mainland.
- 28 Nobel physics prize goes to 3 Soviet physicists: Pavel A. Cherenkov, Ilya M. Frank and Igor Y. Tamm. Chemistry prize goes to Frederick Sanger, of Britain.
- 28 Angelo Giuseppe Cardinal Roncalli elected Pope; takes name John XXIII.
- 30 3 Americans share Nobel prize in medicine—Drs. Joshua Lederberg, George W. Beadle and Edward L. Tatum.
- 31 U. S., Russia and Britain open talks in Geneva on banning nuclear-weapons tests; Russia refuses temporary ban.

Principal Congressional Bills Enacted in 1958

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Housing bill. Provided \$1.85 billion to stimulate housing construction.		Voice vote approval		86	0	April 1, 1958
Road bill. Added \$1.8 billion to previous appropriations.		Voice vote approval		Voice vote approval		April 16, 1958
Postal rates and pay raise bill. Increased first-class mail from 3c to 4c per oz., etc. Provided 7½% pay raise to postal employees.		379	0	88	0	May 27, 1958
Jobless aid bill. Extended by 50% the duration of unemployment benefits for those who had exhausted their benefits. Provided on loan basis to the states, to be repaid by them.	Dem. Rep.	60 163	148 17	} 88		0 June 4, 1958
Alaska statehood bill. (Alaska has also approved.)	Dem. Rep.	117 91	81 85	31 33	13 7	July 7, 1958
Reciprocal trade bill. Extended program for 4 years; gave continued power to President to reduce tariffs on reciprocal by 20%.	Dem. Rep.	} 161		56 { 40 32	6 12	Aug. 20, 1958
Presidential pension bill. Gave \$25,000 annually to ex-Presidents and \$10,000 to their widows.		165	45	Voice vote approval		Aug. 25, 1958
Foreign aid bill. Appropriated \$3.3 billion for fiscal 1959, plus \$644 million in carryover.	Dem. Rep.	Voice vote approval		25 26	9 8	Aug. 29, 1958
Debt limit rise. Raised limit to \$283 billion permanently and to \$288 billion temporarily.		Voice vote approval		57	20	Sept. 2, 1958
Science education bill. Provided loans and fellowships to teachers and guidance counselors; encouraged foreign language study. (\$800 million over 4 years.)	Dem. Rep.	Voice vote approval		37 29	7 8	Sept. 2, 1958

Elections of 1958

IN THE ELECTIONS of November 4, 1958, the Democratic Party scored its biggest mid-term triumph in about 25 years.

The Democrats already had controlled Congress—both Senate and House—but they increased their control substantially. The returns as of Nov. 5 indicated that they had gained thirteen Senate seats and about forty-six House seats.

Among the states in which the Democrats scored notable gains were Connecticut, New Jersey, Michigan, and Wisconsin. Even in Vermont, a Democrat was elected to the House of Representatives for the first time in 106 years. In Ohio, the Democrats sent to defeat the veteran Senator John Bricker, who was regarded as an isolationist.

However, the Republicans had a major consolation prize in New York. Nelson A. Rockefeller, 50, won the governorship by a remarkable plurality of more than half a million votes. His defeated opponent was the incumbent Governor Averell Harriman, 66, a Democrat. This race attracted nationwide attention because it involved two men whose names had become famous in American economic history for amassing wealth.

Rockefeller was generally regarded as a liberal Republican, not a reactionary. Harriman was regarded as a New Dealer. Rockefeller's victory was accompanied by the

victory of his Republican running mate for the United States Senate, Kenneth B. Keating, who sent to defeat New York's District Attorney, Frank S. Hogan, running on the Democratic-Liberal tickets.

Another state that was closely watched in the election was California. There Senator William F. Knowland, generally regarded as a leader of the conservative wing of the Republican Party, was running for Governor. He was defeated by Edmund G. Brown, a Democrat. Involved in this contest was the question of a "right-to-work" amendment to the state constitution. It would have forbidden the union shop, which requires new employees to join the union. Labor opposed the amendment in the belief that it would tend to undermine union strength. Knowland favored it and Brown opposed it. The proposed amendment was defeated.

The "right-to-work" proposal was defeated in five of the six states in which it was put before the voters. Only in Kansas was it adopted.

The election result in California had the effect of placing a large obstacle to Knowland's ambition to win the Republican Presidential nomination in 1960. Similarly, the Rockefeller victory in New York made him a possible rival to Vice President Nixon for the 1960 Republican nomination.

Governors of the States

Furnished by the Associated Press

(Double asterisk indicates incumbent re-elected in 1958 elections; single asterisk indicates non-incumbent elected in 1958.)

ALABAMA: *John Patterson, D.
ALASKA: (Election to be held Nov. 25, 1958) ¹
ARIZONA: *Paul Fannin, R.
ARKANSAS: **Orval E. Faubus, D.
CALIFORNIA: *Edmund G. Brown, D.
COLORADO: **Stephen L. R. McNichols, D.
CONNECTICUT: **Abraham A. Ribicoff, D.
DELAWARE: J. Caleb Boggs, R.
FLORIDA: LeRoy Collins, D.
GEORGIA: *Ernest Vandiver, D.
IDAHO: **Robert E. Smylie, R.
ILLINOIS: William G. Stratton, R.
INDIANA: Harold W. Handley, R.
IOWA: **Herschel C. Loveless, D.
KANSAS: **George Dockett, D.
KENTUCKY: A. B. Chandler, D.
LOUISIANA: Earl K. Long, D.
MAINE: *Clinton A. Clauson, D.
MARYLAND: *J. Millard Tawes, D.
MASSACHUSETTS: **Foster Furcolo, D.
MICHIGAN: **G. Mennen Williams, D.
MINNESOTA: **Orville L. Freeman, D.
MISSISSIPPI: J. P. Coleman, D.
MISSOURI: James T. Blair, Jr., D.
MONTANA: J. Hugo Aronson, R.

NEBRASKA: (Undecided at press time) ²
NEVADA: *Grant Sawyer, D.
NEW HAMPSHIRE: *Wesley Powell, R.
NEW JERSEY: Robert B. Meyner, D.
NEW MEXICO: *John Burroughs, D.
NEW YORK: *Nelson A. Rockefeller, R.
NORTH CAROLINA: Luther H. Hodges, D.
NORTH DAKOTA: **John E. Davis, R.
OHIO: *Michael V. DiSalle, D.
OKLAHOMA: *J. Howard Edmonson, D.
OREGON: *Mark Hatfield, R.
PENNSYLVANIA: *David L. Lawrence, D.
RHODE ISLAND: *Christopher Del Sesto, R.
SOUTH CAROLINA: *Ernest F. Hollings, D.
SOUTH DAKOTA: *Ralph Herseth, D.
TENNESSEE: *Buford Ellington, D.
TEXAS: **Price Daniel, D.
UTAH: George D. Clyde, R.
VERMONT: *Robert T. Stafford, R.
VIRGINIA: James Lindsey Almond, D.
WASHINGTON: Albert D. Rosellini, D.
WEST VIRGINIA: Cecil H. Underwood, R.
WISCONSIN: *Gaylord A. Nelson, D.
WYOMING: *J. J. Hickey, D.

¹ Candidates were William A. Egan, D.; John Butrovich, Jr., R. ² Ralph G. Brooks, D; Victor E. Anderson, R (incumbent).

CONGRESS OF THE UNITED STATES

Furnished by the Associated Press

PARTY STRENGTH IN 82ND TO 86TH CONGRESSES

The Senate*

The House†

	82nd 1951	83rd 1953	84th 1955	85th 1957	86th 1959	82nd 1951	83rd 1953	84th 1955	85th 1957	86th 1959
Democratic	49	47	48	49	62	235	213	232	234	281
Republican	47	48	47	47	34	199	221	203	201	153
Other	0	1	1	0	0	1	1	0	0	

* 49 necessary for majority in 82nd to 85th Congresses; 50, in 86th Congress after Alaska is admitted. † 218 necessary for majority in 82nd to 85th Congresses; 219, in 86th Congress after Alaska is admitted. † Illinois 23rd Congressional district still undecided when we went to press. Alaska election held Nov. 25, 1958. NOTE: The year shown with each Congress is the one in which the 1st session was held. Party breakdown is according to the election held the preceding November.

THE EIGHTY-SIXTH CONGRESS

THE SENATE

The expiration date of each Senator's term is January of the year shown in parentheses. An asterisk (*) indicates that the Senator was re-elected in the 1958 elections to serve a full 6-year term ending in 1965.

ALABAMA

Lister Hill, D (1963)
John J. Sparkman, D (1961)

ALASKA

(Elections held Nov. 25, 1958)¹

ARIZONA

Carl Hayden, D (1963)
*Barry M. Goldwater, R (1965)

ARKANSAS

John L. McClellan, D (1961)
J. W. Fulbright, D (1963)

CALIFORNIA

Thomas H. Kuchel, R (1963)
Clair Engle, D (1965)

COLORADO

Gordon Allott, R (1961)
John A. Carroll, D (1963)

CONNECTICUT

Prescott S. Bush, R (1963)
Thomas J. Dodd, D (1965)

DELAWARE

*John J. Williams, R (1965)
J. Allen Frear, Jr., D (1961)

FLORIDA

*Spessard L. Holland, D (1965)
George A. Smathers, D (1963)

GEORGIA

Richard B. Russell, D (1961)
Herman E. Talmadge, D (1963)

IDAHO

Henry C. Dworshak, R (1961)
Frank Church, D (1963)

ILLINOIS

Paul H. Douglas, D (1961)
Everett M. Dirksen, R (1963)

INDIANA

Homer E. Capehart, R (1963)
R. Vance Hartke, D (1965)

IOWA

Bourke B. Hickenlooper, R (1963)
Thomas E. Martin, R (1961)

KANSAS

Andrew F. Schoeppel, R (1961)
Frank Carlson, R (1963)

KENTUCKY

John Sherman Cooper, R (1961)
Thurston B. Morton, R (1963)

LOUISIANA

Allen J. Ellender, Sr., D (1961)
Russell B. Long, D (1963)

MAINE

Margaret Chase Smith, R (1961)
Edmund S. Muskie, D (1965)

MARYLAND

John M. Butler, R (1963)
*J. Glenn Beall, R (1965)

MASSACHUSETTS

Leverett Saltonstall, R (1961)
*John F. Kennedy, D (1965)

MICHIGAN

Patrick V. McNamara, D (1961)
Phillip A. Hart, D (1965)

MINNESOTA

Hubert H. Humphrey, D (1961)
Eugene J. McCarthy, D (1965)

MISSISSIPPI

James O. Eastland, D (1961)
*John C. Stennis, D (1965)

MISSOURI

Thomas C. Hennings, Jr., D (1963)
*Stuart Symington, D (1965)

MONTANA

James E. Murray, D (1961)
*Mike Mansfield, D (1965)

NEBRASKA

*Roman L. Hruska, R (1965)
Carl T. Curtis, R (1961)

NEVADA

Alan Bible, D (1963)
Howard W. Cannon, D (1965)

NEW HAMPSHIRE

Styles Bridges, R (1961)
Norris Cotton, R (1963)

NEW JERSEY

Clifford P. Case, R (1961)
Harrison A. Williams, Jr., D (1965)

NEW MEXICO

*Dennis Chavez, D (1965)
Clinton P. Anderson, D (1961)

NEW YORK

Jacob K. Javits, R (1963)
Kenneth B. Keating, R (1965)

NORTH CAROLINA

Sam J. Ervin, Jr., D (1963)
B. Everett Jordan, D (1961)²

NORTH DAKOTA

*William Langer, R (1965)
Milton R. Young, R (1963)

OHIO

Frank J. Lausche, D (1963)
Stephen M. Young, D (1965)

OKLAHOMA

Robert S. Kerr, D (1961)
A. S. Mike Monroney, D (1963)

OREGON

Wayne Morse, D (1963)
Richard L. Neuberger, D (1961)

PENNSYLVANIA

Joseph Clark, Jr., D (1963)
Hugh Scott, R (1965)

RHODE ISLAND

Theodore F. Green, D (1961)
*John O. Pastore, D (1965)

SOUTH CAROLINA

Olin D. Johnston, D (1963)
Strom Thurmond, D (1961)

SOUTH DAKOTA

Karl E. Mundt, R (1961)
Francis Case, R (1963)

TENNESSEE

Estes Kefauver, D (1961)
*Albert Gore, D (1965)

TEXAS

Lyndon B. Johnson, D (1961)
*Ralph W. Yarborough, D (1965)

UTAH

Wallace F. Bennett, R (1963)
Frank E. Moss, D (1965)

VERMONT

George D. Aiken, R (1963)
Winston L. Prouty, R (1965)

VIRGINIA

*Harry Flood Byrd, D (1965)
A. Willis Robertson, D (1961)

¹ Candidates for term A: E. L. (Bob) Bartlett, D, and R. E. Robertson, R; candidates for term B: Ernest Greuning, D, and Mike Stepovich, R. Terms of office to be decided by 86th Congress. ² Elected Nov. 4, 1958, for unexpired term ending Jan. 2, 1961.

WASHINGTON

Warren G. Magnuson, D (1963)
*Henry M. Jackson, D (1965)

WEST VIRGINIA

Robert C. Byrd, D (1965)
Jennings Randolph, D (1961)²

WISCONSIN

Alexander Wiley, R (1963)
*William Proxmire, D (1965)

WYOMING

Joseph O'Mahoney, D (1961)
Gale McGee, D (1965)

CONGRESSIONAL COMMITTEES

This information is based on the organization of the Eighty-fifth Congress. It is subject to some changes when the new Congress convenes.

Committees of the Senate

Agriculture and Forestry (15)

Chairman: Allen J. Ellender, Sr. (La.)
Ranking Rep.: George D. Aiken (Vt.)

Appropriations (23)

Chairman: Carl Hayden (Ariz.)
Ranking Rep.: Styles Bridges (N. H.)

Armed Services (15)

Chairman: Richard B. Russell (Ga.)
Ranking Rep.: Leverett Saltonstall (Mass.)

Banking and Currency (15)

Chairman: J. W. Fulbright (Ark.)
Ranking Rep.: Homer E. Capehart (Ind.)

District of Columbia (9)

Chairman: Alan Bible (Nev.)
Ranking Rep.: J. Glenn Beall (Md.)

Finance (15)

Chairman: Harry Flood Byrd (Va.)
Ranking Rep.: Edward Martin (Pa.)

Foreign Relations (15)

Chairman: Theodore F. Green (R. I.)
Ranking Rep.: Alexander Wiley (Wis.)

Government Operations (13)

Chairman: John L. McClellan (Ark.)
Ranking Rep.: Karl E. Mundt (S. Dak.)

Interior and Insular Affairs (15)

Chairman: James E. Murray (Mont.)
Ranking Rep.: George W. Malone (Nev.)

Interstate and Foreign Commerce (15)

Chairman: Warren G. Magnuson (Wash.)
Ranking Rep.: John W. Bricker (Ohio)

Judiciary (15)

Chairman: James O. Eastland (Miss.)
Ranking Rep.: Alexander Wiley (Wis.)

Labor and Public Welfare (13)

Chairman: Lister Hill (Ala.)
Ranking Rep.: H. Alexander Smith (N. J.)

Post Office and Civil Service (13)

Chairman: Olin D. Johnston (S. C.)
Ranking Rep.: Frank Carlson (Kans.)

Public Works (13)

Chairman: Dennis Chavez (N. Mex.)
Ranking Rep.: Edward Martin (Pa.)

Rules and Administration (9)

Chairman: Thomas C. Hennings, Jr. (Mo.)
Ranking Rep.: Carl T. Curtis (Nebr.)

Committees of the House

Agriculture (37)

Chairman: Harold D. Cooley (N. C.)
Ranking Rep.: William S. Hill (Colo.)

Appropriations (50)

Chairman: Clarence Cannon (Mo.)
Ranking Rep.: John Taber (N. Y.)

Armed Services (40)

Chairman: Carl Vinson (Ga.)
Ranking Rep.: Leslie C. Arends (Ill.)

Banking and Currency (30)

Chairman: Brent Spence (Ky.)
Ranking Rep.: Henry O. Talle (Iowa)

District of Columbia (25)

Chairman: John L. McMillan (S. C.)
Ranking Rep.: Sid Simpson (Ill.)

Education and Labor (30)

Chairman: Graham A. Barden (N. C.)
Ranking Rep.: Ralph W. Gwinn (N. Y.)

Foreign Affairs (32)

Chairman: Thomas S. Gordon (Ill.)
Ranking Rep.: Robert B. Chipfield (Ill.)

Government Operations (30)

Chairman: William L. Dawson (Ill.)
Ranking Rep.: Clare E. Hoffman (Mich.)

House Administration (25)

Chairman: Omar Burleson (Tex.)
Ranking Rep.: Karl M. LeCompte (Iowa)

Interior and Insular Affairs (34)

Chairman: Clair Engle (Calif.)
Ranking Rep.: A. L. Miller (Nebr.)

Interstate and Foreign Commerce (33)

Chairman: Oren Harris (Ark.)
Ranking Rep.: Charles A. Wolverton (N. J.)

Judiciary (32)

Chairman: Emanuel Celler (N. Y.)
Ranking Rep.: Kenneth B. Keating (N. Y.)

Merchant Marine and Fisheries (32)

Chairman: Herbert C. Bonner (N. C.)
Ranking Rep.: Thor C. Tollefson (Wash.)

Post Office and Civil Service (25)

Chairman: Tom Murray (Tenn.)
Ranking Rep.: Edward H. Rees (Kans.)

Public Works (34)

Chairman: Charles A. Buckley (N. Y.)
Ranking Rep.: J. Harry McGregor (Ohio)

Rules (12)

Chairman: Howard W. Smith (Va.)
Ranking Rep.: Leo E. Allen (Ill.)

Un-American Activities (9)

Chairman: Francis E. Walter (Pa.)
Ranking Rep.: Bernard W. Kearney (N. Y.)

Veterans' Affairs (22)

Chairman: Olin E. Teague (Tex.)
Ranking Rep.: Edith Nourse Rogers (Mass.)

Ways and Means (25)

Chairman: Jere Cooper (Tenn.)
Ranking Rep.: Daniel A. Reed (N. Y.)

THE HOUSE OF REPRESENTATIVES

The apportionment based on the Seventeenth Census (1950) distributed the seats in the House among the states according to the method of equal proportions. By this method the per cent difference between the average number of Representatives per million people in any 2 states is made as small as possible. Also, the per cent difference between the average districts, i.e., the average number of persons per Representative, in any 2 states is made as small as possible. By equalizing the representation of all pairs of states, the method gives as nearly equal representation as possible to all states in proportion to their population.

The numerals indicate the Congressional Districts of the states, and the designation At-L means At-Large. An asterisk (*) indicates that the Congressman was returned to office in the 1958 elections. The terms of all Representatives end January, 1961.

ALABAMA

(9 Representatives)

1. *Frank W. Boykin, D
2. *George M. Grant, D
3. *George W. Andrews, D
4. *Kenneth A. Roberts, D
5. *Albert Rains, D
6. *Armistead I. Selden, Jr., D
7. *Carl Elliott, D
8. *Robert E. Jones, D
9. *George Huddleston, Jr., D

ALASKA

(1 Representative)

At-L. (Elections held Nov. 25, 1958)¹

ARIZONA

(2 Representatives)

1. *John J. Rhodes, R
2. *Stewart L. Udall, D

ARKANSAS

(6 Representatives)

1. *E. C. Gathings, D
2. *Wilbur D. Mills, D
3. *James W. Trimble, D
4. *Oren Harris, D
5. Dale Alford, D
6. *W. F. Norrell, D

CALIFORNIA

(30 Representatives)

1. Clement W. Miller, D
2. Harold T. Johnson, D
3. *John E. Moss, Jr., D, R
4. *William S. Mailliard, R
5. *John F. Shelley, D, R
6. *John F. Baldwin, Jr., R
7. Jeffery Cohelan, D
8. *George P. Miller, D, R
9. *J. Arthur Younger, R
10. *Charles S. Gubser, R
11. *John J. McFall, D
12. *B. F. Sisk, D
13. *Charles M. Teague, R
14. *Harlan Hagen, D, R
15. *Gordon L. McDonough, R
16. *Donald L. Jackson, R
17. *Cecil R. King, D
18. *Craig Hosmer, R
19. *Chet Holifield, D
20. *H. Allen Smith, R
21. *Edgar W. Hiestand, R
22. *Joe Holt, R
23. *Clyde Doyle, D, R
24. *Glenard P. Lipscomb, R
25. George A. Kassem, D
26. *James Roosevelt, D

27. *Harry R. Sheppard, D
28. *James B. Utt, R
29. *D. S. Saund, D
30. *Bob Wilson, R

COLORADO

(4 Representatives)

1. *Byron G. Rogers, D
2. Byron L. Johnson, D
3. *J. Edgar Chenoweth, R
4. *Wayne N. Aspinall, D

CONNECTICUT

(6 Representatives)

1. Emilio Q. Daddario, D
 2. Chester W. Bowles, D
 3. Robert N. Glaimo, D
 4. Donald J. Irwin, D
 5. John S. Monagan, D
- At-L. Frank Kowalski, D

DELAWARE

(1 Representative)

At-L. Harris B. McDowell, Jr., D

FLORIDA

(8 Representatives)

1. *William C. Cramer, R
2. *Charles E. Bennett, D
3. *Bob Sikes, D
4. *Dante B. Fascell, D
5. *A. Sydney Herlong, Jr., D
6. *Paul G. Rogers, D
7. *James A. Haley, D
8. *D. R. (Billy) Matthews, D

GEORGIA

(10 Representatives)

1. *Prince H. Preston, D
2. *J. L. Pilcher, D
3. *E. L. (Tic) Forrester, D
4. *John J. Flynt, Jr., D
5. *James C. Davis, D
6. *Carl Vinson, D
7. *Erwin Mitchell, D
8. *Mrs. Iris F. Blitch, D
9. *Phil M. Landrum, D
10. *Paul Brown, D

IDAHO

(2 Representatives)

1. *Mrs. Gracie Pfost, D
2. *Hamer H. Budge, R

ILLINOIS

(25 Representatives)

1. *William L. Dawson, D
2. *Barratt O'Hara, D

3. William T. Murphy, D
4. Edward J. Derwinski, R
5. *John C. Kluczynski, D
6. *Thomas J. O'Brien, D
7. *Roland V. Libonati, D
8. Daniel D. Rostenkowski, D
9. *Sidney R. Yates, D
10. *Harold R. Collier, R
11. Roman C. Pucinski, D
12. *Charles A. Boyle, D
13. *Mrs. Marguerite Stitt Church, R

14. Elmer J. Hoffman, R
15. *Noah M. Mason, R
16. *Leo E. Allen, R
17. *Leslie G. Arends, R
18. *Robert H. Michel, R
19. *Robert B. Chipperfield, R
20. *Mrs. Edna Simpson, R
21. *Peter F. Mack, Jr., D
22. *William L. Springer, R
23. (Undecided at press time)
24. *Melvin Price, D
25. *Kenneth J. Gray, D

INDIANA

(11 Representatives)

1. *Ray J. Madden, D
2. *Charles A. Halleck, R
3. John Brademas, D
4. *E. Ross Adair, R
5. J. Edward Roush, D
6. Fred Wampler, D
7. *William G. Bray, R
8. *Winfield K. Denton, D
9. Earl Hogan, D
10. Randall S. Harmon, D
11. Joseph W. Barr, D

IOWA

(8 Representatives)

1. *Fred Schwengel, R
2. Leonard G. Wolf, D
3. *H. R. Gross, R
4. Steven V. Carter, D
5. Neal Smith, D
6. *Merwin Coad, D
7. *Ben F. Jensen, R
8. *Charles B. Hoeven, R

KANSAS

(6 Representatives)

1. *William H. Avery, R
2. Newell A. George, D
3. Denver D. Hargis, D
4. *Edward H. Rees, R
5. *J. Floyd Breeding, D
6. *Wint Smith, R

KENTUCKY**(8 Representatives)**

1. Frank A. Stubblefield, D
2. *William H. Natcher, D
3. Frank W. Burke, D
4. *Frank Chelf, D
5. *Brent Spence, D
6. *John C. Watts, D
7. *Carl D. Perkins, D
8. *Gene Siler, R

LOUISIANA**(8 Representatives)**

1. *F. Edward Hébert, D
2. *Hale Boggs, D
3. *Edwin E. Willis, D
4. *Overton Brooks, D
5. *Otto E. Passman, D
6. *James H. Morrison, D
7. *T. A. Thompson, D
8. Harold B. McSween, D

MAINE**(3 Representatives)**

1. James C. Oliver, D
2. *Frank M. Coffin, D
3. *Clifford G. McIntire, R

MARYLAND**(7 Representatives)**

1. Thomas F. Johnson, D
2. Daniel B. Brewster, D
3. *Edward A. Garmatz, D
4. *George H. Fallon, D
5. *Richard E. Lankford, D
6. John R. Foley, D
7. *Samuel N. Friedel, D

MASSACHUSETTS**(14 Representatives)**

1. Silvio O. Conte, R
2. *Edward P. Boland, D
3. *Philip J. Philbin, D
4. *Harold D. Donohue, D
5. *Mrs. Edith Nourse Rogers, R
6. *William H. Bates, R
7. *Thomas J. Lane, D
8. *Torbett H. Macdonald, D
9. Hastings Keith, R
10. *Laurence Curtis, R
11. *Thomas P. O'Neill, Jr., D
12. *John W. McCormack, D
13. James A. Burke, D
14. *Joseph W. Martin, Jr., R

MICHIGAN**(18 Representatives)**

1. *Thaddeus M. Macrowicz, D
2. *George Meader, R
3. *August E. Johansen, R
4. *Clare E. Hoffman, R
5. *Gerald R. Ford, Jr., R
6. *Charles E. Chamberlain, R
7. James G. O'Hara, D
8. *Alvin M. Bentley, R
9. *Robert P. Griffin, R
10. *Elford A. Cederberg, R
11. *Victor A. Knox, R
12. *John B. Bennett, R

13. *Charles C. Diggs, Jr., D
14. *Louis C. Rabaut, D
15. *John D. Dingell, D
16. *John Lesinski, D
17. *Mrs. Martha W. Griffiths, D
18. *William S. Broomfield, R

MINNESOTA**(9 Representatives)**

1. *Albert H. Quile, R
2. Anchor Nelsen, R
3. *Roy W. Wier, D
4. Joseph E. Karth, D
5. *Walter H. Judd, R
6. *Fred Marshall, D
7. *H. Carl Andersen, R
8. *John A. Blatnik, D
9. Odin Langen, R

MISSISSIPPI**(6 Representatives)**

1. *Thomas G. Abernethy, D
2. *Jamie L. Whitten, D
3. *Frank E. Smith, D
4. *John Bell Williams, D
5. *Arthur Winstead, D
6. *William M. Colmer, D

MISSOURI**(11 Representatives)**

1. *Frank M. Karsten, D
2. *Thomas B. Curtis, R
3. *Leonor K. Sullivan, D
4. *George H. Christopher, D
5. *Richard W. Bolling, D
6. *W. R. Hull, Jr., D
7. *Charles H. Brown, D
8. *A. S. J. Carnahan, D
9. *Clarence Cannon, D
10. *Paul C. Jones, D
11. *Morgan M. Moulder, D

MONTANA**(2 Representatives)**

1. *Lee Metcalf, D
2. *LeRoy H. Anderson, D

NEBRASKA**(4 Representatives)**

1. *Phil Weaver, R
2. *Glenn Cunningham, R
3. Lawrence Brock, D
4. Donald F. McGinley, D

NEVADA**(1 Representative)**

- At-L. *Walter S. Baring, D

NEW HAMPSHIRE**(2 Representatives)**

1. *Chester E. Mellow, R
2. *Perkins Bass, R

NEW JERSEY**(14 Representatives)**

1. William T. Cahill, R
2. *Milton W. Glenn, R
3. *James C. Auchincloss, R
4. *Frank Thompson, Jr., D

5. *Peter Frelinghuysen, Jr., R

6. *Florence P. Dwyer, R
7. *William B. Widnall, R
8. *Gordon Canfield, R
9. *Frank C. Osmer, Jr., R
10. *Peter W. Rodino, Jr., D
11. *Hugh J. Addonizio, D
12. George M. Wallhauser, R
13. Cornelius E. Gallagher, D
14. Dominick V. Daniels, D

NEW MEXICO**(2 Representatives)**

- At-L. *Joseph M. Montoya, D
- At-L. Thomas G. Morris, D

NEW YORK**(43 Representatives)**

1. *Stuyvesant Wainwright, R
2. *Steven B. Derounian, R
3. *Frank J. Becker, R
4. Seymour Halpern, R
5. *Albert H. Bosch, R
6. *Lester Holtzman, D, Lib.
7. *James J. Delaney, D, Lib.
8. *Victor L. Anfuso, D, Lib.
9. *Eugene J. Keogh, D, Lib.
10. *Edna F. Kelly, D, Lib.
11. *Emanuel Celler, D, Lib.
12. *Francis E. Dorn, R
13. *Abraham J. Multer, D, Lib.
14. *John J. Rooney, D, Lib.
15. *John H. Ray, R
16. *Adam C. Powell, Jr., D, R
17. John B. Lindsay, R
18. *Alfred E. Santangelo, D
19. *Leonard Farbstein, D, Lib.
20. *Ludwig Teller, D, Lib.
21. *Herbert Zelenko, D, Lib.
22. *James C. Healey, D
23. *Isidore Dollinger, D
24. *Charles A. Buckley, D
25. *Paul A. Fino, R
26. *Edwin B. Dooley, R
27. Robert R. Barry, R
28. *Katharine St. George, R
29. *J. Ernest Wharton, R
30. *Leo W. O'Brien, D, Lib.
31. *Dean P. Taylor, R
32. Samuel S. Stratton, D, Lib.
33. *Clarence E. Kilburn, R
34. Alexander Pirnie, R
35. *R. Walter Riehman, R
36. *John Taber, R
37. *Howard W. Robison, R
38. Jessica Weiss, R
39. *Harold C. Ostertag, R
40. *William E. Miller, R
41. Thaddeus J. Dulski, D, Lib.
42. *John R. Pillion, R
43. *Daniel A. Reed, R

NORTH CAROLINA**(12 Representatives)**

1. *Herbert C. Bonner, D
2. *L. H. Fountain, D
3. *Graham A. Barden, D
4. *Harold D. Cooley, D
5. *Ralph J. Scott, D

6. *Carl T. Durham, D
7. *Alton Lennon, D
8. *A. Paul Kitchin, D
9. *Hugh Q. Alexander, D
10. *Charles R. Jonas, R
11. *Basil L. Whitener, D
12. David Hall, D

NORTH DAKOTA

(2 Representatives)

- At-L. Quentin Burdick, D
At-L. Don L. Short, R

OHIO

(23 Representatives)

1. *Gordon H. Scherer, R
2. *William E. Hess, R
3. *Paul F. Schenck, R
4. *William M. McCulloch, R
5. Delbert L. Latta, R
6. *James G. Polk, D
7. *Clarence J. Brown, R
8. *Jackson E. Betts, R
9. *Thomas L. Ashley, D
10. Walter H. Moeller, D
11. Robert E. Cook, D
12. Samuel L. Devine, R
13. *A. D. Baumhart, Jr., R
14. *William H. Ayres, R
15. *John E. Henderson, R
16. *Frank T. Bow, R
17. Robert W. Levering, D
18. *Wayne L. Hays, D
19. *Michael J. Kirwan, D
20. *Michael A. Feighan, D
21. *Charles A. Vanik, D
22. *Frances P. Bolton, R
23. *William E. Minshall, R

OKLAHOMA

(6 Representatives)

1. *Page Belcher, R
2. *Ed Edmondson, D
3. *Carl Albert, D
4. *Tom Steed, D
5. *John Jarman, D
6. *Toby Morris, D

OREGON

(4 Representatives)

1. *Walter Norblad, R
2. *Al Ullman, D
3. *Edith Green, D
4. *Charles O. Porter, D

PENNSYLVANIA

(30 Representatives)

1. *William A. Barrett, D
2. *Kathryn E. Granahan, D
3. *James A. Byrne, D
4. *Robert N. C. Nix, D
5. *William J. Green, Jr., D
6. Herman Toll, D
7. William H. Milliken, Jr., R
8. *Willard S. Curtin, R
9. *Paul B. Dague, R
10. Stanley A. Prokop, D
11. *Daniel J. Flood, D
12. *Ivor D. Fenton, R
13. *John A. Lafore, Jr., R

¹ Candidates: Ralph J. Rivers, D, and Vursell, R. (Incumbent).

14. *George M. Rhodes, D
15. *Francis E. Walter, D
16. *Walter M. Mumma, R
17. *Alvin R. Bush, R
18. *Richard M. Simpson, R
19. James M. Quigley, D
20. *James E. Van Zandt, R
21. *John H. Dent, D
22. *John P. Saylor, R
23. *Leon H. Gavin, R
24. *Carroll D. Kearns, R
25. *Frank M. Clark, D
26. *Thomas E. Morgan, D
27. *James G. Fulton, R
28. William S. Moorehead, Jr., D
29. *Robert J. Corbett, R
30. *Elmer J. Holland, D

RHODE ISLAND

(2 Representatives)

1. *Aime J. Forand, D
2. *John E. Fogarty, D

SOUTH CAROLINA

(6 Representatives)

1. *L. Mendel Rivers, D
2. *John J. Riley, D
3. *W. J. Bryan Dorn, D
4. *Robert T. Ashmore, D
5. *Robert W. Hemphill, D
6. *John L. McMillan, D

SOUTH DAKOTA

(2 Representatives)

1. *George S. McGovern, D
2. *E. Y. Berry, R

TENNESSEE

(9 Representatives)

1. *B. Carroll Reece, R
2. *Howard Baker, R
3. *James B. Frazier, D
4. *Joe L. Evins, D
5. *J. Carlton Loser, D
6. *Ross Bass, D
7. *Tom Murray, D
8. *Robert A. Everett, D
9. *Clifford Davis, D

TEXAS

(22 Representatives)

1. *Wright Patman, D
2. *Jack Brooks, D
3. *Lindley Beckworth, D
4. *Sam Rayburn, D
5. *Bruce Alger, R
6. *Olin E. Teague, D
7. *John Dowdy, D
8. *Albert Thomas, D
9. *Clark W. Thompson, D
10. *Homer Thornberry, D
11. *W. R. Poage, D
12. *Jim Wright, D
13. *Frank Ikard, D
14. *John Young, D
15. *Joe M. Kilgore, D
16. *J. T. Rutherford, D
17. *Omar Burleson, D
18. *Walter Rogers, D
19. *George Mahon, D

¹ Candidates: George E. Shipley, D; Charles W.

20. *Paul J. Kilday, D
21. *O. C. Fisher, D
22. Robert Casey, D

UTAH

(2 Representatives)

1. *Henry A. Dixon, R
2. David S. King, D

VERMONT

(1 Representative)

- At-L. William H. Meyer, D

VIRGINIA

(10 Representatives)

1. Thomas N. Downing, D
2. *Porter Hardy, Jr., D
3. *J. Vaughan Gary, D
4. *Watkins M. Abbitt, D
5. *William M. Tuck, D
6. *Richard H. Poff, R
7. *Burr P. Harrison, D
8. *Howard W. Smith, D
9. *W. Pat Jennings, D
10. *Joel T. Broyhill, R

WASHINGTON

(7 Representatives)

1. *Thomas M. Pelly, R
2. *Jack Westland, R
3. *Russell V. Mack, R
4. Catherine May, R
5. *Walt Horan, R
6. *Thor C. Tollefson, R
7. *Don Magnuson, D

WEST VIRGINIA

(6 Representatives)

1. *Arch A. Moore, Jr., R
2. *Harley O. Staggers, D
3. *Cleveland M. Bailey, D
4. Ken Hechler, D
5. *Elizabeth Kee, D
6. John Slack, D

WISCONSIN

(10 Representatives)

1. Gerald T. Flynn, D
2. Robert W. Kastenmeyer, D
3. *Gardner R. Withrow, R
4. *Clement J. Zablocki, D
5. *Henry S. Reuss, D
6. *William K. Van Pelt, R
7. *Melvin R. Laird, R
8. *John W. Byrnes, R
9. *Lester R. Johnson, D
10. *Alvin E. O'Konski, R

WYOMING

(1 Representative)

- At-L. *Keith Thomson, R

HAWAII

(1 Delegate)

- *John A. Burns, D

PUERTO RICO

(1 Resident Commissioner)

- Antonio Fernos-Isern, Pop. Dem.

YOUR HEALTH AND LONG LIFE

PREPARED IN COLLABORATION WITH MEMBERS OF THE

Medical Department of the HEALTH INSURANCE PLAN OF GREATER NEW YORK

HEALTH may be defined as the state of complete physical, mental, and social well-being. It implies much more than the absence of disease or infirmity. When we are healthy we are able to work, think, and act without fatigue, pain, or irritation.

Health is our greatest asset. It must not be taken for granted and it should not be squandered. When our health is good, we seldom think about it. When we lose it, we may find it difficult to think about anything else.

Care of our health should not be expensive. On the contrary, it should and can be comparatively inexpensive *if we spend money for medical services at the right time in the right place for the right things.* It is interesting to note how little we invest for the protection and preservation of our health when we are healthy and how much we are prepared to spend when we become ill.

The following table compares the amount that Americans spent for medical care in 1955 compared with what they spent for alcoholic beverages and recreation.

1955 PERSONAL CONSUMPTION EXPENDITURES *

Total Medical Care	\$11,272,000,000
Alcoholic Beverages	9,050,000,000
Recreation	13,034,000,000

* *Journal of the American Medical Association*, 162:414 (Sept. 22, 1956)

Personal Hygiene and the Rules of Health

Life in our modern society is much more complicated than it formerly was and many rules of health accepted by our ancestors now have little relevance. We may have difficulty in evolving our own rules of health, for each of us has individual needs and must make his own adjustment to environmental stress.

Many times during our lifetime we may

In 1957, over \$300,000,000 were spent for medical research in the United States. This was about two-thirds of 1% of the country's military expenditures. The President's Commission on the Health Needs of the Nation estimated, in 1952, that less money was spent on medical research than on tombstones and monuments.

From funds raised by voluntary agencies, the total amount devoted to research in heart disease, cancer, mental illness, arthritis, neurological diseases, and blindness was about one-eighteenth of that spent by the American people on chewing gum, about one-fifth of the amount spent on ball point pens, one-quarter of the outlay on lipsticks, and one-third of that spent on powder compacts.

As Americans, most of our children can now be born healthy and can reasonably expect to escape many former perils of infancy and early childhood. They can be protected from unnecessary infections, can avoid crippling deformities, and can attain and maintain a degree of health that permits useful and vigorous living with expectation of an age span much greater than could be anticipated by their forebears.

In 1900 the average life expectancy of newborns was only thirty-seven years; today the average life expectancy at birth is almost seventy years and many will live beyond that.

be assailed by doubts or we may develop discomforts or fears which we are unable to interpret correctly. In seeking help we cannot be guided by advice of well-meaning but medically untrained friends or relatives.

If we have doubts, we should seek help from our physician, for unwarranted fears are destructive of health. He can tell us

if our fears are unfounded or what to do if they are not. We should consult him promptly and without dread that he will regard our fears as foolish or hypochondriac. In his advice, however, he also must take into account how we make our living, what we do in our spare time, and how we react intellectually and emotionally to our environment.

Even in our complex society there are, however, two fundamental rules of health that are as applicable now as they ever were. The first is: *Be moderate in everything—in food, in drink, in strenuous work, in thought, and especially in temper.* The second is: Avoid wasting energy in useless activities that fail to provide contentment or satisfaction.

Food and Drink

We need not regard eating and drinking merely as a duty. It is one of the great pleasures of life and our health will be better if we regard it as such. Our meals should be taken in leisure, in pleasant surroundings, with pleasant companions. Each morsel should be savored. But we ought not to stuff ourselves. We should not drink too much when we eat lest we overtax our digestive organs. Spices may be used to improve the flavor of food, but too much should be avoided, for they may irritate or congest body membranes. Salt should be taken in moderation because excessive amounts tend to increase the storage of water in the body, disturbing normal internal functions.

Our food must contain all the elements necessary to maintain us. For example, more than 70% of our body weight consists of water. Loss of water through perspiration, breathing, and elimination must be promptly replaced, especially in hot weather.

Protein is needed to rebuild the tissues that are destroyed in everyday wear and tear.

Fats and carbohydrates must be consumed to furnish energy.

Vitamins are required to prevent dietary deficiencies and to assure full utilization of other foods.

Minerals such as potassium, calcium, and phosphorus found naturally in most of our foods are needed in amounts sufficient to maintain body fluid of uniform composition.

The amount of food we need varies with the kind of life we lead. We need proportionately more food in childhood when we are growing rapidly or when exerting

ourselves vigorously. We need less food when we are less active or growing old.

Ordinarily, an adult who works at a white collar sitting job should not consume more than 1,800 calories. But this would depend also on the size, age, and sex of the individual. On the other hand, an active athlete or laborer performing long hours of work may require over 4,000 calories.

In other words, each of us ought to consume in the long run the amount of calories we use up. An adequate intake of protein is essential but in America this needs little emphasis, since our abundance of food supplies enough in ordinary diets to replace broken-down tissues.

To be sure that we are getting enough to eat, we may rely to some extent on the bathroom scale. A record of weight at regular intervals should help indicate whether a diet is adequate.

We should remember that excessive perspiration may cause weight loss, while on the other hand, the extreme consumption of large amounts of salt may lead to drinking and storage of unneeded water by the body, and thus a weight gain. A physician should be consulted if there is a consistent loss or gain in weight.

In many parts of the world, lack of proper food is the greatest obstacle to good health but in America this is rarely a serious problem. On the contrary, the danger for most of us is that we will eat too much, will stuff ourselves. And if we make a habit of this we will become fat and lazy and sick. Many, in effect, dig their graves with their teeth.

The dangers of overeating can be really alarming. We must watch the total number of calories we consume. We must pay particular attention to the quality and amount of fat in our diet.

Let us beware of eating too much dairy fat in the form of cream, butter, and cheese. Also, eating too much animal fat in the form of gravies, fat meat, and lard is unwise.

Fat can contribute to the complications of atherosclerosis, a form of hardening of the arteries. This is one of the greatest enemies of health and long life that Americans face.

Even if it doesn't kill us prematurely overeating offers other dangers and disadvantages. If we eat too much we increase our chances of getting diabetes, high blood pressure, or a heart attack. Overeating also increases the possibility of gallstones, shortness of breath, and makes us feel the heat more; it will bring excessive sweating and a variety of skin diseases. It fosters stretching of the lungs

Calories and Vitamins of Selected Foods

Source: U. S. Dept. of Agriculture, Agriculture Handbook No. 8 (June 1950).

Food and (amount) ¹	Energy, calories	Vitamin A value, Int. Units	Thiamine, mg.	Riboflavin, mg.	Niacin, mg.	Ascorbic acid, mg.
Apples (1 medium R).....	76	120	.05	.04	.2	6
Bacon: medium fat (2 sl. C).....	97	(0)	.08	.05	.8	0
Bananas (1 medium R).....	88	430	.04	.05	.7	10
Beans: snap, green (1 cup C ²).....	27	830	.09	.12	.6	18
Beef: sirloin ³ (3 oz. C).....	257	30	.06	.16	4.1	0
Beets: red, diced (1 cup C).....	68	30	.03	.07	.5	11
Bread: rye (1 sl.).....	57	0	.04	.02	.4	(0)
Bread: white, enriched ⁴ (1 sl.).....	63	0	.06	.04	.5	(0)
Bread: wholewheat (1 sl.).....	55	0	.07	.03	.7	(0)
Butter (1 tbs.).....	100	460 ⁵	...	...	...	(0)
Buttermilk: cultured ⁶ (1 cup).....	86	10	.09	.43	.3	3
Cabbage (1 cup R).....	24	80	.06	.05	.3	50
Carrots: diced (1 cup C).....	44	18,130	.07	.07	.7	6
Cheese: Swiss (1 oz.).....	105	410	trace	(.11)	(trace)	(0)
Cheese: cottage ⁶ (1 cup).....	215	(50)	.04	.69	(.2)	(0)
Chicken: roasters ⁷ (4 oz. R).....	227	460	.09	.18	9.1	(0)
Chocolate: unsweetened (1 oz.).....	143	20	.01	.06	.3	(0)
Corn (1 ear C).....	84	390 ⁸	.11	.10	1.4	8
Crackers: graham (2 medium).....	55	(0)	.04	.02	.2	(0)
Cream: light (½ pt.).....	489	1,980	.07	.34	.2	3
Eggs: poached (1).....	77	540	.04	.12	trace	0
Flour: wheat, enriched ⁹ (1 cup).....	401	(0)	.48	.29	3.8	(0)
Grapefruit (½ medium).....	75	20	.07	.04	.4	76
Ham: smoked ⁴ (3 oz. C).....	339	(0)	.46	.18	3.5	0
Hamburger (3 oz. C).....	316	40	.07	.16	4.1	0
Honey (1 tbs.).....	62	(0)	trace	.01	trace	1
Ice cream (1/7 qt. brick).....	167	420	.03	.15	.1	1
Lamb: leg roast ³ (3 oz. C).....	230	...	.12	.21	4.4	0
Lemons (1 medium).....	20	0	.03	trace	.1	31
Liver: calf (3 oz. R).....	120	19,130	.18	2.65	13.7	30
Macaroni: enriched (1 cup PC).....	209	(0)	.24	.15	2.0	(0)
Margarine ¹⁰ (1 tbs.).....	101	460	...	...	...	(0)
Milk: fluid, whole (1 cup).....	166	(390)	.09	.42	.3	3
Molasses: cane, medium (1 tbs.).....	46	...	...	.02	.2	...
Oatmeal (1 cup C).....	148	(0)	.22	.05	.4	(0)
Oranges (1 medium).....	70	(290)	.12	.04	.4	77
Oysters ¹¹ (1 cup R).....	200	770	.35	.48	2.8	...
Peaches (1 medium R).....	46	880	.02	.05	.9	8
Peanut butter (1 tbs.).....	92	0	.02	.02	2.6	(0)
Peanuts: roasted, chopped (1 tbs.).....	50	0	.03	.01	1.5	(0)
Peas: green, immature (1 cup C).....	111	1,150	.40	.22	3.7	24
Plums (1 R).....	29	200	.04	.02	.3	3
Pork: loin ³ (3 oz. C).....	284	(0)	.71	.20	4.3	0
Potatoes: white (1 cup mashed ¹²).....	159	80	.16	.10	1.7	14
Prunes: unsulfured ¹⁴ (1 cup C).....	310	2,210	.07	.20	2.0	2
Raisins: unsulfured (1 tbs.).....	26	trace	.02	.01	trace	trace
Rice: white (1 cup C).....	201	(0)	.02	.01	.7	(0)
Round steak ³ (3 oz. C).....	197	20	.06	.19	4.7	0
Salmon: pink, canned (3 oz.).....	122	60	.03	.16	6.8	(0)
Sausage: pork, canned (4 oz.).....	340	(0)	.23	.27	3.4	0
Spaghetti: enriched (1 cup PC).....	218	(0)	.25	.15	2.1	(0)
Spinach (1 cup C).....	46	21,200	.14	.36	1.1	54
Sugar: granulated (1 tsp.).....	16	(0)	(0)	(0)	(0)	(0)
Sweetpotatoes (1 baked).....	183	11,410 ¹²	.12	.08	.9	28
Tomatoes (1 medium R).....	30	1,640	.08	.06	.8	35
Turkey: medium fat (4 oz. R).....	304	...	.10	.16	9.1	(0)
Turnips: diced (1 cup C).....	42	trace	.06	.09	.6	28
Veal cutlet ³ (3 oz. C).....	184	...	.07 ¹⁵	.24 ¹⁵	5.2 ¹⁵	0

¹ R—raw; C—cooked; PC—partially cooked. ² Cooked short time in small amount of water. ³ Boneless. ⁴ 4% nonfat milk solids. ⁵ Year-round average. ⁶ Made from skim milk. ⁷ Bone out. Vitamin values based on muscle meat only. ⁸ Based on yellow corn; white corn contains only a trace. ⁹ Patent. ¹⁰ Vitamin A added. ¹¹ Meat only. ¹² If very pale varieties only were used, value would be much lower. ¹³ Milk added. ¹⁴ No sugar added. ¹⁵ Data assume cut to be prepared by braising or pot roasting. Use of proportionate quantity of drippings would add approximately 50% more thiamine and niacin and 25% more riboflavin.

NOTE: Parentheses denote imputed values. The sign ... shows that no basis could be found for imputing a value although there was some reason to believe that a measurable amount might be present.

rupture, and arthritis of the hips and knees.

Overweight can be avoided in most instances by a proper balance between intake of energy (food) and expenditure of energy (as physical activity). Energy is measured in caloric units, and if the number of calories taken in as food is consistently less than the number of calories we use up through physical activity, we will lose weight.

Practical application of this rule may be difficult because of psychological factors and the simple fact that mental and emotional unhappiness may cause some people to overeat.

Undernutrition

We must be careful not to overdo our dietary restriction, on the assumption that if limitation of calories to a given amount is desirable for weight reduction, more stringent deprivation will be even more helpful. Although further caloric reduction will result in even more rapid loss in weight, great care must be exercised to include amounts of protein and vitamins sufficient for the normal functions of the body.

Vitamins are chemical substances other than protein, fat, and carbohydrates, that occur naturally in many foods and are essential, in small amounts, for normal body functioning.

The following list of some important vitamins gives the major sources of each and indicates the results of deficiency.

VITAMIN A—Fish liver oils, butter, egg yolk, and liver. Deficiency may cause defective vision at night, inflammation of the eyes, and disorders of the skin.

VITAMIN D—Fish oils and egg yolk. Milk is often enriched with Vitamin D by special process, and Vitamin D is produced naturally in the body on exposure to sunlight. Deficiency may cause rickets, a disease manifested by defects in the mineral metabolism of bones.

VITAMIN E—Green leafy vegetables, wheat germ oil, and peanuts. Deficiency has not been proved to cause any specific disorders in man. It has been suspected that it might interfere with reproduction.

VITAMIN K—Green vegetables (such as kale, spinach). It is formed in large amounts by bacteria that normally inhabit the large intestine. Deficiency

interferes with formation of prothrombin, a substance necessary for normal blood clotting.

VITAMIN C (Ascorbic acid)—Fresh fruits (especially citrus fruits) and fresh vegetables. Deficiency may cause scurvy, a disease manifested by hemorrhage and by disorders of bones and joints.

VITAMIN B COMPLEX—(Comprises a group of many distinct substances)—

(a) Thiamin (B-1)—Whole grain cereals and breads (especially when enriched), yeast, and meats (especially liver and pork). Deficiency may cause beriberi, a disease characterized by disorders of nerves, heart, and fluid distribution.

(b) Riboflavin (B-2 or G)—Liver, pork, kidney and other meats, milk, and eggs. Bread is often enriched with riboflavin. Deficiency may cause disorders of the mouth, the tongue, and the skin.

(c) Niacin (Nicotinic acid)—Meats, fish, enriched cereals, whole grain cereals, and yeast. Deficiency may cause pellagra, a disease manifested by disorders of the skin, tongue, mouth, intestines, and brain.

(d) Folic acid—Liver, beef, veal, kidney, and yeast. Deficiency may cause anemia.

(e) Vitamin B-12—Muscle meats, milk, egg, cheese. Deficiency may cause anemia.

Other substances found in the Vitamin B complex are listed with their food sources. The clinical consequences of deficiency are not well defined:

(f) Pyridoxine (B-6)—Liver, kidney, wheat germ, whole grain cereals, and yeast.

(g) Pantothenic acid—Kidney, liver, egg yolk, and yeast.

(h) Inositol—White grains, yeast, milk, meats.

(i) Choline—Brain, heart, sweetbreads, liver, and kidney.

(j) Biotin—Eggs, yeast, milk, liver, and kidney.

(k) Para-aminobenzoic acid (PABA)—Liver, yeast.

To prevent vitamin, protein, and other

food deficiencies during periods of fasting for correction of overweight, the following list of foods furnishes a rough guide of minimum dietary constituents for an average adult.

Milk—2 glasses a day
 Eggs—5 a week
 Meat, fish, poultry, or cheese—2 servings a day
 Vegetables—2 servings a day
 Fruit—3 servings a day, including one citrus fruit
 Bread—3 slices of bread a day.

Vitamins as medication are necessary only during recovery from severe or prolonged illness when food intake is inadequate in quantity or quality and during certain diseases (which interfere with the absorption or utilization of food). For the average person who eats normally, taking of vitamins serves no useful purpose.

Sleep

There is a limit beyond which we cannot do without sleep. Men have starved for more than forty days, but a sleepless week is beyond the bounds of human endurance.

How long and when people need to sleep varies with individual needs.

Most adults seem to need about eight hours sleep. A few may need ten hours. Some active, vigorous people appear to thrive on no more than five hours at night, if they have trained themselves to steal short naps between daytime tasks. This privilege obviously is not shared by many. Three hours of completely restful sleep may be better than eight interrupted by anger, worry, or bad dreams.

By the time we become adult, we should have developed good sleeping habits, since we spend 25% or more of our lives in sleeping. The ability to sleep soundly is part of having a healthy mind as well as a healthy body.

Some things may interfere with sound sleep. Among them are uncomfortable surroundings, unaccustomed light and noises, drinking coffee or tea late in the day, unpleasant memories and worries.

Our sleep may be disrupted by grief, fear, or anxieties. And sleep also may not come because we are afraid that it won't.

Since sleep is one of the foundations of good health, the lack of sleep may be a warning of the loss of health. If the lack of sufficient sleep continues long enough, it will lead to loss of weight and strength. People in this condition are easily susceptible to colds and other more serious infections.

If we can't sleep we may try reading a dull book. The time-honored method of

counting sheep is also recommended. If this doesn't work, we may practice deep rhythmical breathings. A hot bath or a hot drink, or placing a hot water bottle against the feet if they are cold also may be helpful.

If discomfort or pain is causing wakefulness an aspirin may be taken. When we are worried we may be able to reason ourselves out of it. If sleep does not come after home measures are tried, a physician should be seen.

Treatment with sedatives and the newer "miracle" drugs is not recommended because they result in unnatural sleep and lead to a feeling of depression. They may be dangerous to use without the control and judgment of a physician.

Care of the Bowels

It is well to cultivate the habit of regularity and to encourage bowel movement either before or after breakfast each morning and to allow enough time for this. Among the factors that might interfere with regular movements or foster constipation are travel, stress, worry, or changes in food.

When the bowels do not move regularly, body wastes accumulate and we may get headaches, aching muscles, indigestion, and belching. We may have a feeling of tightness, distention, or bloating in the abdomen.

Most people are used to one or two bowel movements daily, usually after breakfast or after the largest meal of the day. Such frequency is not necessary to all and one may skip a day or even several days without developing unpleasant symptoms or feeling the need for special treatment.

Laxatives, cathartics, and enemas are almost always harmful, and even though they may be effective temporarily, tend to develop chronic constipation. In other words, their use is to be avoided.

Simplest measures are best to encourage bowel regularity. Lubricants such as mineral oil are helpful, but they should not be used too frequently because they may interfere with the body's absorption of Vitamin A and other fat soluble vitamins.

It may also be helpful to eat vegetables and fruit containing roughage. Simple medications such as agar and cellulose may be useful. The best treatment of all, however, is to cultivate regular habits and to eat foods that agree with us.

Care of the Teeth

It is easier and cheaper to take care of our teeth than to treat them after trouble starts. It is best to correct malformations,

cavities, and infections in their early stages. Tooth decay and cavities are a serious problem in the United States.

One of the most promising findings in recent years is that the consumption of very small amounts of fluoride in the drinking water (one part in a million) helps to reduce tooth decay in children (60%), and tends to check it at all ages without harmful results.

As of May 1, 1958, there were 1,644 communities in the United States that had undertaken to add fluoride to their water supplies. Approximately 33,500,000 persons were thus protected, in addition to some 3,000,000 persons whose drinking water contains protective amounts of fluoride through natural sources.

The frequency of dental decay can also be greatly reduced by avoiding the eating of candy, and of other sweets, especially before retiring at night.

The teeth should be brushed morning and evening, preferably after meals, in order to cleanse them. Brushing removes food particles which may give rise to cavities and disease of the gums.

Most tooth pastes are equally good for they help form a lather during the brushing and aid in the mechanical cleansing process. We may therefore ignore the theoretical virtues of the various dental preparations advertised on TV and radio and choose the one that tastes best.

Activity, Occupation, and Hobbies

Most people are not happy thinking about themselves all the time. A healthful adjustment to life requires intensive, varied, and pleasant outside interests. For many this means earning a living at something they enjoy doing. Others may find outside enjoyment in an absorbing hobby, a search for adventure, or in helping others.

It is a good idea to have more than one interest so that we may switch our attention rapidly from one to another. It is important that our interest in business, profession, or hobby does not take up so much time that it invades our hours of relaxation, rest, and sleep.

A certain amount of physical activity is necessary for health. We need not worry about this in the always active and curious infant, or during the period of exuberance and seemingly endless energy in youth and adolescence. But it may become important to the student, and particularly to the adult who has to face the uncertainties of making a living.

Exercise stimulates growth and action of the muscles. It fosters coordination, im-

proves the circulation of the blood, and the elimination of body waste products. Exercise makes us feel better mentally as well as physically.

People who do not exercise are likely to lack the muscular strength to meet the ordinary demands of the day. They are almost certain to fail to meet unexpected crises that require brief spurts of energy.

The evils of complete lack of physical activity are most apparent in patients who became bedridden by illness or injury. Intensive rehabilitation is often necessary to overcome the profound wasting of bone and muscles which develops during prolonged inactivity.

Youth is the best period for exercise because it is then that muscles may be best developed. A child of five may have four hours of physical activity a day. The amount may be increased gradually to the age of ten when six hours of physical activity may be beneficial. Exercise may then be decreased gradually to the age of twenty, when two hours a day may be enough.

For those over twenty, one hour of exercise a day involving the large muscles of the body will probably be sufficient throughout the remainder of life or as long as health is maintained.

Exercise may increase the size of our muscles but we don't need to have enormous muscles to enjoy good health. On the other hand, most people need some exercise to attain the highest degree of well-being. In offering advice the needs and capacity of each individual must be studied before he is told how much and what kind of exercise he ought to have.

As a general rule, the best forms of exercise for relatively healthy people of various ages and background are walking, swimming, fishing, golf, and gardening. Ordinarily setting-up exercises in the morning or evening may also be recommended. The use of rowing machines, mechanical weights, dumbbells, and Indian clubs may be more attractive to others who have been advised by their physicians to exercise their large muscles.

A note of caution must be inserted here: If we are out of training or not accustomed by habit to physical exertion, it would be advisable to avoid competitive sports such as handball, football, hockey, baseball, squash, running, or other violent activities.

We may do ourselves great harm by taking part in such activities if we are not prepared adequately for them. Many persons getting on in years have collapsed and not a few have died of unwise exertions on tennis, squash, and handball courts.

Exercise is good for us. But we must not overdo it. Our age is important here. If there are any doubts about how much or what kind of exercise is best for us, our physician is the one to see.

Recreation, Breaks, and Vacations

Working too hard or too long at one task may make us lose interest in it. When we become bored or weary it is time to take a break, if we can. It need not always be long. A nap, a short walk in the open air, a leisurely meal in pleasant company, or only a coffee break or tea in the afternoon may be enough.

At other times a vacation may be necessary. Many who work in today's business or industrial world receive two days off a week, but because of the high speed and constant strain of modern society two days of rest may not be enough.

Vacations need not be long if we are healthy. Several short vacations may be more helpful than a single long one. They might consist of an extra day of relaxation at golf, in the woods, or on the trout stream. Sometimes it may be better to take a long weekend off. At other times a week or a month may be necessary.

However short the vacation, it should represent a break. At best, it should be a complete change of scene with new companions. It should take us away completely from our usual occupations and afford plenty of relaxation by day and long, comfortable sleep at night. It should be in the company of congenial friends. Most important of all, it should be arranged to avoid excesses in any form. Adults unaccustomed to strenuous exercise may be harmed seriously by overindulgence during vacation periods.

Mental Health and the Cultivation of Contentment

Happiness and contentment are essential to health. Some authorities believe that mental health is achieved by those who have learned how to balance their desires with what they know are their limitations.

To be happy we need to recognize our limitations and learn how to live with them. Happiness depends on freedom from worry and the ability to control undesirable emotions and desires or to exclude them from our consciousness.

Unhappiness, discontent, worry, and anxiety have profound effects upon physical health and may interfere seriously with the functioning of such important internal organs as the heart, stomach, or intestinal

tract. They may in this manner cause cardiac, gastric, or intestinal symptoms so realistic and convincing that we believe we have one or more of a wide variety of diseases.

A thorough examination by a competent physician may quickly reassure us that the distressing symptoms are merely the result of functional overactivity of the affected organ or part of the body, and that there is no need to worry about organic disease. Knowledge that there is no disease, only a functional disorder, is more than half the cure.

Conversely, too much knowledge, or rather pseudo-science is also dangerous. Today, false information on disease that is broadcast in radio and television commercials is a frequent cause of anxiety neurosis. Half the world consists of suggestible people, both males and females, who believe whatever they hear, regardless of the reliability of the source.

Psychosomatic Illness

In the past few years, the term "psychosomatic illness" has come into common use. It is, indeed, often misused as well. Some seem to believe that a psychosomatic illness is really not an illness at all but is the product of a person's imagination. Some believe that when a physician says a person has a psychosomatic illness he is really saying "there is nothing wrong that a little self-discipline won't cure." Such beliefs are erroneous.

Psychosomatic illnesses are real, they have identifiable causes, and appropriate cures. It is important to know that many different types of illness may be psychosomatic. A psychosomatic disorder is one in which a person has bodily symptoms that are related to an underlying emotional disturbance. The emotional disturbance may be the major cause in some instances, whereas in other instances it may serve merely to aggravate a pre-existing physical disorder.

The emotional and physical aspects of body function are intimately inter-related and almost any illness may be influenced by emotional factors. The treatment of even the most mechanical disorder—for example, a broken leg—may be influenced by the patient's emotional status and his determination to recover fully or his unresisting submission to his fate.

The term "psychosomatic disorder" is usually reserved for those illnesses where emotional factors commonly play a major role. Examples of such conditions are:

Gastrointestinal disturbances (peptic ulcer, gastritis, hyperacidity, pylorospasm, colitis, irritable colon)

Cardiovascular disturbances (hypertension, certain disturbances of heart rhythm, and certain disturbances of blood vessel tone, including migraine)
 Sexual disturbances (impotence and frigidity)
 Allergic disturbances (including asthma)
 Certain skin disorders.

There is an extremely wide range of differences among different persons with regard to these so-called "psychosomatic illnesses." Asthma in one patient may have a very strong emotional component, and an attack may be precipitated by almost any emotional disturbance. Another patient's asthma may flare up only on exposure to some offending substance such as animal fur. The first patient's asthma represents a psychosomatic disorder; the second patient's asthma does not.

Two Habits That May Harm Health

Life today is full of stress and strain. The problems of day-to-day living are often so complex that our nervous systems seem inadequate to cope with them. Two of the most common forms of trying to escape from these problems or to get temporary relief from them are smoking and drinking.

TOBACCO

More and more evidence indicates that excessive cigarette smoking is a cause of lung cancer. Many studies show that lung cancers occur much more frequently among cigarette smokers than among non-smokers and that the risk of lung cancer depends in part upon the number of cigarettes smoked.

In London, the Central Council for Health and Education has authorized distribution of a poster that quotes the following medical advice from the Health Officer: "It is my duty to warn all cigarette smokers that there is now conclusive evidence that they are running a greater risk of contracting cancer than non-smokers. The risk mounts with the number of cigarettes smoked. Giving up smoking reduces the risk."

There also is an increasing body of evidence tending to show that cigarette smoking helps to cause diseases of the circulation, particularly in the arteries affecting feet, legs, and heart.

There is also evidence that total death rates are increased among cigar smokers, although to a lesser degree than among cigarette smokers, and among pipe smokers, although to a lesser degree than among cigar smokers. Pipe smoking has also been associated with an increased incidence of cancer of the lip.

However, despite these recent disclosures, a legal ban on cigarette smoking or their manufacture and distribution would be unwise. In a democracy everyone has the right to know the facts. What an individual decides to do about them as they affect his health must depend largely on his own intelligence, understanding, and willingness to do what is necessary.

ALCOHOL

Medical opinion varies as to the danger from moderate consumption of alcohol. Man has been drinking alcohol in one form or another almost from the dawn of history and in virtually every area of the world.

It must be realized though that alcohol is a drug that affects the nervous system and, like all drugs, is a poison when taken in excessive amounts.

Small or moderate amounts may make us feel better because our inhibitions seem less important. Even with moderate usage, however, coordination and judgment may be impaired.

With larger doses, speech becomes thickened, vision is blurred, sensations are lost. Tremors, convulsions, unconsciousness, or even death may result from acute alcoholic intoxication.

Persistent excessive drinking leads to physical and mental deterioration, causes loss of appetite, irritates the stomach and intestines, interferes with the absorption of vitamins, and leads to deficiency diseases and cirrhosis of the liver.

It has been estimated that from 5 to 50% of fatal automobile accidents are due to the consumption of alcohol and that about 25% of all psychiatric patients give some history of alcoholic addiction.

There can be no doubt that misuse of alcohol is one of the great causes of unhappiness, discontent, and ill health. In any consideration of the rules of health and the responsibility of the individual for following them, the potential and actual evils of alcoholism must be emphasized.

If we don't drink, it is better not to start. If we do drink, the rule that applies universally to almost everything we do should be remembered—moderation. Drinking to excess is unhealthy. If drinking begins to interfere with normal eating habits, then the danger point is near and it is time to see a physician.

The Medicine Cabinet

Every family should have certain drug and first-aid supplies readily accessible for use. There are, however, certain basic rules which should be observed.

Sleeping pills and other substances that may be harmful in even moderate overdosage must be kept separately so that there will be no danger to anyone accidentally using the wrong medicine. In this connection, we should remember never to reach for medicines in the dark and use them without carefully examining the label.

Remember that almost any substance can be poisonous in overdosage and that children might innocently consume large amounts. Precautions against this possibility must be maintained. One method of accomplishing this is to keep only a few pills of any substance in an unlocked cabinet, and to keep the rest of the supply locked up.

The following is a list of suggested contents of a family medicine cabinet.

- Aspirin (adult and children's dosage)
- Sodium bicarbonate
- Paregoric
- Rubbing Alcohol
- Talcum Powder
- Calomine Lotion
- Local antiseptic (such as tincture of metaphen)
- A simple cathartic recommended by the family physician
- Gauze bandage (roll)
- Bandage compresses
- Absorbent cotton
- Fever thermometers (one mouth, one rectal)
- Petroleum jelly
- Bandage scissors
- Tweezers
- Eye cup

Self-Medication

A warning: Even an adult can do himself harm as the result of an unwise visit to the medicine cabinet. Self-medication can be extremely dangerous, and while the common sense use of simple remedies such as aspirin for a headache usually can be undertaken by any intelligent adult, extensive self-medication should be avoided. Two examples of common symptoms that should not be treated without medical advice are cough and abdominal pain.

A persistent cough may indicate a significant respiratory illness and should be the cause for a visit to a physician. Continued self-treatment with a patent cough medicine may serve merely to delay proper treatment.

Abdominal pain may indicate appendicitis or some other serious intestinal disturbance. The taking of a laxative as a routine measure may dangerously aggravate any existing condition. A physician should be consulted whenever there is severe abdominal pain.

The dangers of self-medication have been increased by the many commercial products that are presented to the public for over-the-counter sale in drug stores and by the flood of television, radio, and newspaper advertising that has accompanied these products.

Many persons are induced by advertising campaigns to purchase patent medicines for the relief of cough, for the assurance of bowel regularity, for the fortification of diets through vitamin and mineral supplements, and so on. It is quite probable that many of the persons who purchase these products do not need them and that those who do need them should consult a physician rather than undertake self-diagnosis and self-medication.

Personal Health Record

In recent years some physicians and professional groups have developed an interest in accumulating comprehensive life records of every individual that would provide a complete cumulative personal and medical history. A condensed version of this record may be given to every patient, to be presented to any physician in an emergency, or to school, camp, employment, or military authorities.

The large-scale development of such a program of comprehensive life records has been considered by the American Medical Association, but is at present a long way from practical realization.

However, it is quite feasible and desirable for a family to maintain a brief record of important health data for each of its members. Each individual's record should be compiled with the assistance of the family physician and should include the following information:

Birth date

Weight and length at birth, plus any usual features of delivery

Dates of all vaccinations and other immunizing injections (including boosters)

Date of all contagious diseases

Dates and descriptions of all surgical procedures and hospitalization for any reason

Mention of causes of death of parents and grandparents, and major diseases of these individuals.

Routine Immunization

The use of vaccines and other immunizing agents is a basic aspect of good medical care. Through proper immunization it is possible to prevent many of the serious infectious diseases that were formerly so prevalent.

There are several different schedules for immunization, any of which is entirely adequate. The exact schedule should be determined by a physician. In most communities, if a family does not have access to any practicing physician the local health department will provide the necessary childhood immunizations.

The following immunizations should be given to every child during the first six or nine months of life (details of the schedule to be determined by a physician):

- Pertussis (whooping cough)
- Diphtheria
- Tetanus (lock jaw)
- Smallpox
- Poliomyelitis (infantile paralysis)

Most of these immunizations require two or three injections, in series, for proper results.

In addition to the original immunizations, every child should have "booster" doses to assure continued immunity. Here, also, the specific time schedule should be left to a physician. In general, however, the following boosters are recommended:

Diphtheria—age two years and five years

Pertussis—age two years and five years

Tetanus—once every three to five years throughout life

Smallpox—age six years and twelve years

In addition, a "booster" dose of any of the above should be given upon possible exposure to that particular disease.

A recommended schedule for booster doses of poliomyelitis vaccine has not yet been determined.

There is no immunization measure that provides complete protection against measles, but the illness can usually be made less severe if "gamma globulin" is administered in proper dosage promptly after exposure.

Immunization when Traveling Abroad

When traveling outside the limits of the United States, immunization against various infectious diseases is recommended.

The exact requirements are subject to change, and should be ascertained at the time of application for a passport. In general, however, the following immunizations are recommended:

For all international travel: Smallpox, tetanus, typhoid and paratyphoid, in addition to those specified below:

For Communist Europe: Typhus

For Asia: Typhus, cholera, yellow fever

For Africa: Typhus, cholera, yellow fever

For South America: Yellow fever

For Oceania: Cholera, yellow fever

Problems of Health for the Aged or Retired

Intensive health programs have resulted not only in better living for the American people but also in remarkable changes in the age composition of the population.

There has been a steady increase in the population of this country; at present the rate is 3,000,000 a year. At the same time, the diminished death rate has rapidly increased the average life expectancy, which even at age 60 has risen to 17.5 years! The result has been a steady increase in the number of aged people. In 1900, about 4% of our population were 65 or over. By 1950, about 8% had attained this age. It is estimated that in 1980, about 15% of the population, or 25,000,000 persons, will be 65 or over.

For this group there are special problems in the maintenance of health. Persons over 65 need more than twice as much hospital care as those in the general population. The older person is subject to many emotional problems. Loneliness is common because of the high proportion who have lost marital partners, friends, and job associates.

Forced retirement also produces many of the problems of old age. At a time of life when medical needs are becoming greater, forced retirement results in termination of health insurance for many aged persons, or at least obliges them to start paying higher premiums out of limited retirement income. A much reduced schedule of medical care may result in neglect of ailments that might otherwise be promptly diagnosed and treated. The older person has thus been made useless by our society's philosophy of uselessness.

The prevailing philosophy concerning retirement of the aged and what to do for these senior citizens must be subject to critical analysis and careful planning if we are to meet the challenge.

Arturo Toscanini conducted his last symphony when he was well past 80. Goethe finished "Faust" after he was 80. Winston Churchill, Frank Lloyd Wright, the architect, and Pablo Casals, the cellist, continue active and productive beyond 80. These men of great ability have surpassed their contemporaries in achievements which should remind us that a man's or woman's period of usefulness need not end arbitrarily at 60 or 65.

At the present time there appears to be very little valid medical or scientific basis

for retirement at sixty-five. This age was adopted by insurance companies for measuring the mortality risks of insured persons. The insurance companies apparently chose this age because sixty-five was first written into the Social Security system in Germany in the 1880's.

This has also been the experience of the many social clubs established for older people by voluntary social agencies, philanthropic individuals, and settlement houses. Social contacts and useful work have broadened their horizons and led them to contentment and a happier, healthier old age.

In emphasizing the older person's capacity for independent living, socially and economically, we must not, of course, turn our backs on the steps taken to prevent the older person's becoming dependent. Social security payments, which represent a source of financial support to which the individual himself has made a substantial contribution during his wage earning years, have been most helpful. But retirement policies of industry and of labor unions must also become more flexible and more rational. Assurance of adequate medical care in old age is of major importance. If it cannot be provided by the expansion and liberalization of existing health insurance plans, it will be necessary to make it available through amendment of the Social Security laws.

Throughout our efforts to help the aged, we should emphasize a philosophy of helping them to help themselves. A rigid and doctrinaire paternalism will serve to undermine the individual's self-respect and capacity for self-care, just as total neglect of his needs will leave him to cope with social, economic, and medical problems that are beyond his capacities. Our older citizens are a major segment of our population—of us—and a segment that is growing yearly in size and importance. We must develop a positive philosophy toward this part of ourselves if our society is to achieve its maximum potential.

Rehabilitation

The alcoholic, the victim of a stroke, the victim of an accident, the blind, the paralyzed polio patient, the patient with heart disease, the neurologic patient, the amputee, the deaf, the epileptic patient—these and many others are possible candidates for prolonged dependence. This means not only physical dependence, but also financial dependence on family or on the taxpayer.

Until recent years, most of these people faced a bleak future. However, World War II presented many employers with a manpower shortage and, unhappily, also began

to deliver a supply of handicapped persons to the community.

Industry began to seek ways of using these handicapped individuals—and the new concept of physical and vocational rehabilitation began to take form. It soon became apparent that the rehabilitated worker was fully as dependable as his unimpaired co-workers—in some ways even more dependable.

Some disabled persons can be restored to full earning capacity; others to only partial earning capacity; still others may not be employable but may at least be restored to physical independence so that they can live with their families instead of being cut off from society in long-term institutions, where the community must bear the cost of their care.

There are over 2,000,000 persons in the United States who can and should be rehabilitated. These are people whose age and potential skills are well suited to productive employment, but who instead constitute a drain on their families' resources and on tax-supported community programs. More than 500 million dollars in tax funds are spent each year for the vocational rehabilitation and for the care and maintenance of disabled persons in this country who cannot be restored to any occupation.

By contrast, the 71,000 persons who were rehabilitated in 1956 increased their earnings from 19 million dollars to 129 million dollars. Although it cost about 50 million dollars to rehabilitate these 71,000 persons, they paid an estimated 11 to 12 million dollars in Federal income taxes (an additional amount in State taxes) during the first year after their rehabilitation, and will have repaid in taxes the entire cost of their rehabilitation in three to four years.

Their estimated productivity in subsequent years is such that during their remaining working years they will repay in taxes twelve times the cost of rehabilitating them. Add to this the importance of all these people's living happy, productive lives instead of their former wasted, unhappy existence—a chronic drain on the community.

The record of this country in achieving an annual rate of 70,000 persons rehabilitated is important, but we have far to go—because each year about 250,000 additional Americans become newly disabled by disease or by accidents.

Interest in the potentialities of rehabilitation has been of relatively recent origin. Personnel to carry out the necessary education and methods is as yet deplorably inadequate for the needs or demands of people in many parts of the country. The

most important center has become the Institute of Physical Medicine and Rehabilitation, whose splendid methods have been copied in varying degree by many smaller institutes in other cities. Those who find themselves in need of rehabilitation should consult their physician. They may inquire concerning facilities at the Institute of Physical Medicine and Rehabilitation in New York or at the Office of Vocational Rehabilitation of the Department of Health, Education and Welfare in Washington, D. C.

Use and Selection of a Doctor

When we feel well and energetic, we don't often think about doctors. It may be difficult for us even to imagine sickness or pain. But it is our common lot that gradually or suddenly illness will at some time overtake us. It may be because of accident, defects in our bodies, bad habits, or just insecurity or unhappiness. Sooner or later every one of us faces the question: Am I well? It is then that the need for a physician seems urgent.

Actually we ought not to wait until we are sick to see a doctor. Everyone, even the most healthy, needs from infancy to old age the advice of a skilled and trusted physician. When we are well, we should look to him for thorough, searching examination and for preservation of a record which will form an invaluable basis for comparison when later we are sick. We should depend upon him for necessary immunizations, for counsel when we are anxious or doubtful, for advice about activity, diet, and other adaptations to life.

It is useful and may be lifesaving to know as soon as possible if health is failing. Prevention is always better than cure and with the resources of modern medicine it is possible to limit or forestall the development of many serious illnesses.

Selection of an appropriate physician is not always easy. Our adviser should be wise in his profession, personally congenial, and deeply interested in our welfare.

Today all physicians in this country must have graduated from an acceptable medical school and must be licensed to practice either by the State or by the nation. In the eyes of the law all licensed physicians are equal and each is permitted to practice all branches of medicine, surgery, and midwifery. Actually, however, all licensed physicians are not equal in education, training, or skill. One doctor knowledgeable in one branch of medicine may be far from skillful in another.

It is no longer possible to find a general practitioner who can do everything nec-

essary in the maintenance of health and the cure of disease. But we can hope to find a doctor who will serve as family physician, friend, and guide, a man who knows us well and who can lead us through the intricacies of medical practice to whatever diagnosis and treatment may be needed. Only by great good luck can such an adviser be found by leafing through the pages of the classified telephone directory or from the casual advice of an acquaintance. Our family physician should be a graduate of a good medical school, a man who has had long postgraduate training in hospitals. In his practice he should have associated himself with a hospital of approved standing, with adequate laboratory and x-ray facilities, and with able medical specialists whom he will not hesitate to consult whenever his own skill and knowledge seem to him insufficient.

On many occasions we require the advice of a physician and all the resources that he can command. Each of us should be able at all times of need to obtain the best that modern science can offer in the prevention and cure of disease. We know, however, that medical care is both complex and expensive. In our program for preservation of health we must not only have available the best medical care; we must also be able to pay for it. Some recent developments in the practice of medicine have made these goals more nearly attainable.

Group Medicine

The need of combining skills in the practice of modern medicine has led to the formation of groups or teams of doctors with centers of operation in association with hospitals, private clinics, or insurance plans. In a center shared by doctors of diverse skills are assembled instruments, laboratories, and all the paraphernalia essential to the complete practice of medicine in its various phases. In most of these groups expenses and income as well as the use of facilities are shared by the participating doctors.

Teamwork which becomes possible under such an arrangement offers many advantages both to the patient and to the doctor. Under a single roof skills, techniques, and equipment of several medical and allied specialties can be assembled. The family physician, a member of the group, can refer his patients with impunity to one or more specialists of his group.

At the present time there are in this country more than a thousand groups of physicians practicing more or less in accordance with this pattern. Convenience and economy for doctor and patient are so obvious

ously superior to arrangements in solo practice that many new groups are being formed each year.

Health and Hospital Insurance

The expense of medical care and hospitalization has become so great that almost no one can budget for catastrophic or prolonged illness. As a result, there have grown up during the past thirty years many plans for partial or semi-complete health insurance.

The movement got under way during the depression which followed the stock market crash of 1929. It started with a small plan for insuring against hospital expense, which was organized for 1500 school teachers by the Baylor University Hospital in Dallas, Texas. The plan was found to be financially sound and was imitated almost immediately in many other places throughout the United States. This was the beginning of Blue Cross, which by 1939 had three million subscribers. By 1950 there were twelve million members in 63 plans, and in October, 1957, the forty millionth Blue Cross member was honored at a testimonial dinner.

In 1939, physicians in California devised a plan applying the Blue Cross community rate idea to provision of surgical care. Thus Blue Shield was born. This in turn has been widely copied and has extended rapidly over the entire country.

Through the years other somewhat similar plans for covering the expense of physicians' services have been developed: in New York by Group Health Insurance (GHI) and the Health Insurance Plan of Greater New York (HIP), in California by the Kaiser Permanente Foundation, and in many parts of the country by unions, commercial insurance companies, and co-operatives. By 1957, 111,000,000 Americans, or approximately 70% of the population, had some form of voluntary health insurance.

Unusually comprehensive coverage is offered by the Health Insurance Plan of Greater New York, which was initiated in 1947 to cover the needs of municipal workers but was so arranged that it could serve other groups of New Yorkers with similar medical requirements. In its eleventh year it has over 500,000 enrollees. For a premium considerably less than the average prevailing charge to private patients for an x-ray examination of the stomach and intestines, a single member of a group can obtain for a year all medical, surgical, and specialist attention from a partnership of physicians who maintain a strategically located and well-equipped

center in his district. He can be attended in the office, the medical center, the home, and the hospital. He can receive all necessary diagnostic, laboratory, and x-ray procedures. He can have eye examinations, visiting nurse service, ambulance service between home and hospital, health examinations, and immunizations, and other measures of preventive medicine. Hospitalization is provided through Blue Cross but professional care in the hospital is included as a benefit of the HIP premium.

This remarkable economy for the subscriber is possible in this and in other similar plans through utilization of well-organized group medicine with centralization of facilities and through spreading of costs by insurance in a relatively large population.

That such service may be of relatively high quality and includes effective measures of prevention is indicated by recent studies which show that the prenatal mortality rate in HIP practice is more than a third lower than the rate in New York City as a whole and more than 25% lower than the rate in the non-HIP private practice of the city. Further study showed that enrollees in HIP required hospitalization almost 20% less frequently than did persons enrolled as members of a local indemnity plan; that during a 12-month period 75% of HIP members saw a doctor, as compared with 57% for the general New York City population; that more enrollees in HIP have a regular family physician; that more of them receive annual health examinations; that 90% of HIP children under one year old receive their medical care from certified pediatricians, as compared with 50% for children of the same age in the general New York City population; that children in HIP receive an average of 15 services from their medical group physicians during the first year of life; and that 90% of them receive essential vaccinations during the same 12-month period.

Although no completely satisfactory plan for prepaid comprehensive medical service has as yet been developed, it is through perfection of such voluntarily sponsored prepaid insurance plans for comprehensive medical service by groups of physicians that we may hope to obtain in the future all of the benefits that modern medicine can offer at a price that most of us can afford to pay.

Community hygiene, the maintenance of healthy conditions in our environment, is the greatest factor in our unprecedented opportunity to enjoy health. The means by which healthy environmental conditions are maintained constitute one of the main structures of life today.

Community Hygiene and the Public Health

A LOOK at what the world was like before the development of modern medicine should prove helpful to anyone interested in his own health or that of his community.

In past centuries man lived in fear of pestilence, crippling from uncorrected deformities, and suffering from chronic illness, for which there was no relief such as modern medicine brings today. In addition to affliction with all the diseases to which human flesh is heir, inhabitants of Europe and America suffered a succession of frightful epidemics.

Today, a few other countries, such as Norway, the Netherlands, and New Zealand, share about equally America's opportunity to enjoy good health. But for millions in Asia, Africa, and some parts of South America, almost medieval conditions for exposure to infections still persist.

Malaria, which has practically disappeared in the United States, remains the

chief cause of death in many countries. Cholera, which is also practically nonexistent in the United States, is still a threat in Asia.

Typhus fever, although now relatively quiescent, is still widespread. Plague smolders in Burma, India, Indonesia, South America, Central Africa, Madagascar, and the Union of South Africa.

Tuberculosis, the incidence of which is declining in the United States and many European countries, continues to be one of the chief causes of death wherever overcrowding, poverty, poor housing, and filth are uncontrolled.

Outbreaks of typhus in Serbia, Russia, and Ethiopia, of plague in North Africa, as well as the highly fatal influenza epidemic of 1918, still emphasize the continuing danger from infectious diseases.

The steps by which we have attained our present state of health are so numerous that only a few can be mentioned.

Important Contributions to the Development of Health

In the history of medicine there have been many individuals who have made important contributions to the development of public health. Only a few of the highlights can be touched on here. For example, in 1688 Anthony van Leeuwenhoek was the first to see bacteria through a crude microscope. Edward Jenner performed the first vaccination in 1796, and in 1842 Crawford Long used anesthetic in Jefferson, Ga.

Florence Nightingale made her important contribution by publishing *Notes on Nursing* in 1859, and two years later Louis Pasteur described anaerobic bacteria, the start in a long series of discoveries in the microbial cause of disease. Joseph Lister introduced antiseptic surgery in 1867.

Among other important milestones were the discovery of the tubercle bacillus in 1882 by Robert Koch; the proof by Walter Reed and James Carroll in 1899 that yellow fever was transmitted by mosquitoes; the invention of salvarsan (a landmark in the development of chemotherapy) by Paul Ehrlich in 1909; Sir Alexander Fleming's discovery of the action of penicillin in 1928; Selman Waksman's introduction of streptomycin in 1942; and, in 1957, Jonas Salk's first effective vaccine for poliomyelitis.

Effects of applying the discoveries such as those listed above and many others are partially indicated by America's record of

achievement in the conquest of infectious diseases. This may be shown first by comparing the death rate of thirteen important groups of infections in 1900 and in 1956.

Mortality from Infectious Diseases in U. S., 1900 and 1956

The table below compares the death rate per 100,000 for the two years:

	1900	1956
Total death rate	1719.1	928.7
Death rate from infections		
Pneumonia and influenza	202.2	27.0
Tuberculosis	194.4	8.3
Dysentery and diarrhea	12.0	1.9
Diphtheria	40.3	0.0
Typhoid	31.3	0.1
Measles	13.3	0.4
Whooping cough	12.2	0.2
Scarlet fever	9.6	0.1
Syphilis	12.0	2.4
Malaria	6.2	0.0
Erysipelas	5.4	0.1
Tetanus	2.4	0.1
Rabies	0.1	0.1
Total	550.4	20.4

The infectious diseases that have been listed accounted in 1900 for about 30% of the total deaths of that year; in 1956 for less than 3%. In 1900, about 400,000 died of these infections; in 1956, despite

the enormous increase in population, only 31,080 died.

Infant and Maternal Mortality

Progress in control of infection may also be shown by study of deaths from child-birth and during infancy. Although in the United States statistics of infant mortality were not kept accurately until 1910, a great saving of life was evident. At the same time, with the control of puerperal infections, better anesthesia, and better prenatal and postnatal care, maternal deaths were dramatically reduced until at present in some hospitals with large maternity services an entire year may pass without loss of a single mother. The trend may be seen in the following table:

Infant and Maternal Mortality		
	1900	1956
Under one year		
White males	175.9	29.8
White females	142.6	22.5
Non-white males	369.3	58.1
Non-white females	299.5	46.0
Neonatal		18.8 E
Fetal		
Maternal		0.4

Incidence and Morbidity of Infectious Diseases

Mortality, or death rate from disease, presents only a partial picture of the state of health in the United States. Definite figures concerning incidence or attack rate and the extent of non-fatal illness from infections are available only in diseases for which reports are required by Boards of Health but are indicative of great improvement in the general health of the population. They do not portray the gratifying decrease in incidence of some other diseases, such as rheumatic fever, in which unquestionably decrease in incidence and in late consequences may be attributed in part to improvement in standards of nutrition, food, housing, and sanitation and in part to the control of streptococcal sore throat by prompt use of penicillin and other antibiotics.

Mortality from Chronic Diseases

From 1900 to 1956, while the death rate from infectious diseases was falling off rapidly, other forms of disease were becoming more important as causes of death. Heart disease, which in 1900 caused less than 10% of the total deaths, had by 1956 increased to almost 40%. The number of deaths from malignant disease rose similarly. Vascular lesions of the nervous system showed no increase in rate. Accidents, at present the fourth ranking cause of death, showed a moderate percentage in-

crease during the half century, with the automobile being responsible for an increase in the total number of deaths. Other important conditions, such as diabetes, congenital deformities, and cirrhosis of the liver, showed little difference in relative incidence. Some of these relationships can be seen in the following table:

	1900		1956	
	Rate	% Total	Rate	% Total
Total death rate	1719.1	100.0	928.7	100.0
Diseases of the heart	137.4	8.1	352.0	37.9
Malignant neoplasms	64.0	3.7	147.6	15.9
Vascular lesions of the central nervous system	106.9	6.2	106.6	11.5
Accidents	72.3	4.2	55.6	6.0
Diabetes	11.0	0.6	15.2	1.6
Congenital malformations	12.0	0.7	11.9	1.3
Cirrhosis of liver	12.5	0.7	10.8	1.2
	416.1	24.2	699.1	75.4

Unequal Distribution of Health Benefits

The benefits of health have not been evenly distributed in the population. A state with higher general living standards and more fully developed health facilities has much more favorable death and disease rates than other less fortunate districts. Throughout the country the white population has more favorable rates than the non-white.

Out of every 1,000 infants born in this country in 1900, 175 died as compared with 30 in 1950. But in one state in 1950 only 21 children died among each 1,000 born. In another during the same year 55 out of each 1,000 died. In one of our states the rate was 39 per 1,000 for the white population but 87 per 1,000 for the non-white population.

Out of every 10,000 births in 1920, about 70 mothers died, but in 1950 the average for the entire country showed death of only 8 mothers for each 10,000 live births. In one state the rate in 1950 was only 4 per 10,000, whereas in another it was 23, or almost 6 times as great. Among the non-white population of the latter state, the rate was 32 per 10,000.

In 1900, out of every 100,000 Americans, about 195 died of tuberculosis, while 50 years later this figure had been reduced to about 20 for the entire country. But in one state in 1950, only 7 out of every 100,000 died of tuberculosis. In another state during the same year, 35 out of 100,000 succumbed to the disease.

The Cost of Health

The health of America depends upon an adequate number of physicians, dentists, nurses, and related personnel in the places where they are needed. It depends upon all of the educational facilities necessary for their training and experience. It depends on a sufficient number of hospitals, laboratories, and health stations.

Provision of medical facilities and resources costs a lot of money. Some of the expense is borne by municipalities, states, and the Federal Government. Voluntary contributions and private philanthropy account for a part of the expense. But the largest part—about 70%—is paid for by individuals, either in direct payments to physician or hospital or through insurance.

The total spent in the United States for health services in 1955 was almost \$16,000,000,000, an amount that makes medical care one of the country's largest industries. The following table shows how the money for medical care was spent in that year:

Total expenditures for health services	\$15,948,900,000
Publicly supported care Federal, State, and local Governments*	4,676,900,000
Personal consumption expenditures†	11,272,000,000
Physicians' services	3,070,000,000
Hospital costs	3,130,000,000
Dentists' services	1,017,000,000
All other medical costs	2,308,000,000

Costs are still rising and in 1957 they hit a record high. Medical care rose more than all other major groups of expenses. In the 20 years from 1936 to 1956 the percentage increase for medical care was 134.7 as compared with 118 for all items. This was due chiefly, however, to increases in hospital rates, which rose 264.8% while fees of general practitioners increased only 72.8% and surgeons' fees only 59.5%.

In 1928, the value of hospitals in the United States was estimated to be \$3,500,000,000; in 1947, \$5,900,000,000, and in 1956, about \$13,000,000,000. Of the total in 1956, 80%, or about \$10,500,000,000, was estimated to be in physical plant, land, buildings, and equipment. The replacement figures for all this would be very much higher today, whereas the average cost of a hospital bed formerly was \$8,100, it is now about \$20,000.

Provisions for the Future

Objectives of medical care now far exceed the cure and alleviance of disease. More important are the early recognition for prevention of disease and the achievement of social efficiency for the individual, the family, and the community. Today there are in our society many important new forces. One of these is the unprecedented increase in our population which according to reliable estimates will have grown by 1980, less than 25 years from now, from 173,000,000 to 240,000,000. Another is the inevitable increase in numbers and proportions of our older citizens. Still another aspect concerns our attitude toward medical care and the increasing belief of many people that the opportunity for good health is a basic human right. This in itself increases the demand for the highest quality of medical service which will not be limited to present concepts and coverage but will extend itself to such subjects as health management in the community, to the care of chronic and mental illness, and to more extensive rehabilitation.

More doctors, more dentists, more nurses, and more ancillary personnel will be needed because of the rapidly increasing population and also because newer definitions of medical care and service require greater expenditure of time. More facilities are already required for the education and training of these professional and nonprofessional groups. They must be enormously extended to meet the needs of the next few decades.

Medical research has been the foundation of knowledge and practical resources in medical care. The table of landmarks in the development of health resources has shown how knowledge has been built up step by step by investigators of unusual talent and perception. Today we are not content to wait for the birth and emergence of geniuses. To accomplish most, we must depend more upon large numbers of trained and prepared scientists and upon group effort. Many more scientists must be trained and large amounts of money will be required for their education. Progress in knowledge of the causes, prevention, and treatment of mental illness, heart disease, cancer, and many other serious maladies will be made only by painstaking and prolonged investigation and by the efforts of many men and women. It can be and should be speeded by appropriation of large allotments of our national income.

* Publicly supported care (Federal, State, and local government) was taken from Research and Statistics Note No. 39, Sept. 13, 1956, U. S. Department of Health, Education, and Welfare, Social Security Administration, Division of Program Research.

† Personal consumption expenditures were taken from *Journal of the American Medical Association*, 162; 414 (Sept. 22, 1956.)

SPACE AGE NEWS

WHAT HAPPENED AND WHAT WILL HAPPEN

By

WILLY LEY

Looking Back at Year I of the Space Age

FOR YEARS most scientists had agreed that the Space Age would begin with the firing of an unmanned artificial satellite into an orbit around the earth. When the International Geophysical Year (IGY), which ran from July, 1957, to the end of 1958, was organized, it was decided that the first satellite shots should be undertaken during the IGY. But since this was an entirely new venture which might be delayed by multitudes of unforeseen and unforeseeable circumstances, no precise date was set.

It soon became clear, however, that the Russians were aiming for a specific date. It so happened that the centenary of the birth of the Russian space travel pioneer, Konstantin Eduardovitch Ziolkovsky, fell into the IGY. Ziolkovsky was born on September 5, 1857, at Ijevsk in the District of Vyazan. But this was according to the old style Russian calendar. With the Revolution, Russia switched to the western style (or Gregorian) calendar and it has become customary to re-date events in the Russian past as if the Gregorian calendar had been in use then. Hence, September 7 was considered to be Ziolkovsky's birthday and the Russian rocket experts wanted to shoot their first Sputnik—a term first used by Ziolkovsky in 1903 in its present meaning—in celebration of his one hundredth birthday.

Although it was claimed later that the first Russian artificial satellite was a "surprise" and that the Russians had prepared for it "secretly" this just was not so. In October, 1955, a few months after the announcement of Project Vanguard, Professor Kyrill Stanyukovitch published an article in a Russian magazine in which he stated that the Russian experts were thinking of bigger and heavier artificial satellites than Vanguard.

One year later the Russians became much more specific in their claims. Professor Georgi Pokrovsky stated that the Russian satellite would have a diameter of

24 inches (actual diameter of Sputnik I was 23.8 inches), that it would weigh more than 100 pounds (actual weight: 184 pounds) and that its intended orbit would have its low point or perigee at 185 miles and its high point or apogee at 810 miles. (The actual figures were 156 and 560 miles.) On June 2, 1957, *Pravda* stated in an article by Professor Alexander Nesmeyanov that the rockets, the instruments, and the equipment for the first artificial satellite "have been created."

Every one of these articles was reported by American newspapers.

Early in September, 1957, radio "hams" in the United States were informed by their Japanese opposite numbers that they (the Japanese) had been briefed by Russian radio stations on which wave lengths the Russian satellite would broadcast so that they could adjust their receiving equipment.

For reasons not yet known to us, the firing of Sputnik I was delayed from the obviously intended date of September 17 to the date of October 4, 1957. Russian scientists, when questioned, asserted that they did not have a failure on September 17 and intimated that they just had not been ready. Since they used a well-tested military missile for their satellite shot, this assertion sounds credible.

Propaganda Triumph

The firing of Sputnik I constituted an enormous propaganda victory simply because it was the first. The Russians followed up with another such propaganda victory in making Sputnik II (fired on November 3, 1957,) the first orbital animal experiment. Actually, Sputnik II was a kind of combination experiment: the artificial satellite consisted of a rocket nose cone holding a satellite like Sputnik I plus the animal capsule for the 11-pound dog Laika ("barker").

It would be ridiculous to maintain that

American prestige abroad did not suffer. In Europe the Explorer and Vanguard satellites are still called "American Sputniks" by the population even though the public prints use their proper names. It is now established that the then Secretary of Defense, Charles E. Wilson, did not think that the first artificial satellite would carry any value and refused to listen to people who tried to advise him. The official position was that the United States had a satellite project, called Vanguard, which would go into action if and when ready.

Near the beginning of Year I of the Space Age, the United States carried out a high-altitude space project, named Farside. Farside consisted of a four-stage solid fuel rocket which was to be carried by plastic balloons to altitudes greater than 80,000 feet and launched from there, shooting through the balloon which had lifted them. The reason for the balloon launch was to lift the rockets beyond the denser layers of the atmosphere so that they would not be retarded too much by air resistance. This was a very interesting idea which had been advocated in one form or another since 1923. The intended altitude for the Farside rockets was one earth radius, or about 4,000 miles.

The conditions for such an experiment were that the balloon launch take place as high as possible to minimize air resistance; that the balloon hang motionless at the instant of launching to insure vertical ascent for the rockets and, finally, that all four stages of the combination rocket be fired in quick succession. Unfortunately, Project Farside did not come off well. Of the six rockets of the experiment, four were failures, plain and simple. In one case, the balloon with the rocket suspended from it seems to have started a pendulum swing just at the proper moment, the proper *wrong* moment. In another case, it seems as if several stages ignited simultaneously. One rocket apparently performed as planned but its radio transmitter did not work so that it is not known how high it went. Only one was a limited success. Its radio transmitter failed to work at an altitude of 2,700 miles but the rocket is believed to have continued on its upward course for a few more hundred miles so that the probable peak altitude of this shot was 3,000 miles.

The Highest Yet

The Farside shots (which were not a part of the IGY) were made in September and October, 1957, over the Pacific Ocean in the neighborhood of Eniwetok atoll. Still the one Farside rocket that did turn out to be a reasonable success went higher

than any other rocket during Year I of the Space Age.

Meanwhile, the Vanguard Program had progressed through various generally successful shots with preliminary test vehicles. These preliminary test vehicles were labelled TV while the satellite launching shots to follow had the designation SLV for satellite launching vehicle. (See: Table.) The general concept of the Vanguard rocket was this: the first stage, with liquid fuels, was to be mostly just a powerful booster, guided by equipment in the second stage. The second stage then was to increase the velocity, supplying the guidance and to position the solid fuel third stage. This third stage was to supply the velocity needed to bring the artificial satellite to orbital velocity.

The first stage had been test-flown repeatedly and the third stage had also made a test flight. But only the second stage, labelled "all-important" by the men of the project, had not been test-flown. It was to be tested in the first shot of the full three-stage vehicle. Since this was still considered a test, the rocket was not supposed to carry the fully instrumented 20-inch spherical satellite but was given a small 6¼ inch test satellite instead. Everybody concerned with the project used carefully selected language. For example, the Navy always labelled the Vanguard rocket a "vehicle," the reason for using this word being that it was to be made clear that this rocket was not a "missile." (But the use of the term "vehicle" resulted in many letters from the public asking who was to ride it.) Likewise the Vanguard shot was called a "test" by everybody concerned. But the label did not mean anything at all to world opinion. So far as people everywhere, including those in the United States, were concerned this now was the American satellite shot. After all, two Russian satellites were in orbit at the time.

The Vanguard test was slated for December 4, 1957. There was an endless countdown with multitudes of interruptions. Finally the test had to be called off because the crew was absolutely exhausted. Another attempt was scheduled for only two days later, December 6. There was every reason to be very apprehensive. When there are as many interruptions in the countdown as there had been on December 4 the thing to do is to take another rocket. Besides, this was the first test flight of the second stage.

Catastrophe

Of course every reader will still remember that the attempt ended in catastrophe, but, strangely enough, the catastrophe was not caused by the untested second stage.

TRIALS AND TRIBULATIONS OF PROJECT VANGUARD

Designation	Date	Result and Remarks
TV No. 0.	Dec. 8, 1956	Test Vehicle No. 0 was Viking No. XIII. No upper stages. Altitude 126 mi., range 183 mi. Successful.
TV No. 1.	May 1, 1957	First stage (Viking No. XIV) and third stage only. Altitude 120 mi., range 450 mi. Successful.
TV No. 2.	Oct. 23, 1957	Vanguard first stage with dummy second and third stages. Altitude 109 mi., range 330 mi. Successful.
TV No. 3.	Dec. 6, 1957	Full three-stage Vanguard with 6-in. satellite. Failure during lift-off. Rocket settled back and exploded, damaging launching pad.
TV No. 3. Back-up	Feb. 5, 1958	Full three-stage Vanguard with 6-in. satellite. First stage only one to fire. Rocket broke apart in mid-air 60 seconds after lifting.
TV No. 4.	March 17, 1958	Full three-stage Vanguard with 6-in. satellite. Completely successful, satellite in orbit.
TV No. 5.	April 28, 1958	Full three-stage Vanguard with 20-in. satellite. Altitude 340 mi., impact 1500 mi. from Cape Canaveral. Failure because third stage did not ignite.
SLV No. 1.	May 27, 1958	Complete vehicle with 20-in. satellite. Second stage pointed up instead of moving horizontally. Satellite reached 2200 mi. peak altitude. Impact 7500 mi. from Cape Canaveral, ocean east of South Africa.
SLV No. 2.	June 26, 1958	Complete vehicle with 20-in. satellite. Second stage cut off prematurely, third stage did not fire. Unsuccessful.
SLV No. 3.	Sept. 16, 1958	Complete vehicle with 20-in. satellite. Cut-off at instant of ignition. No take-off.
SLV No. 3. Repeat	Sept. 26, 1958	Same vehicle. All three stages fired, too steep, no orbit achieved. Performance similar to SLV No. 1.

but by a mechanical failure in the first stage, something nobody had expected. At the moment the rocket lifted off the launching pad, one of the hydraulic actuators burst, probably causing additional damage. The rocket lost power, settled back tail first, split open and the fuel exploded. The fire severely damaged the launching pad and there was only one pad provided for the Vanguard rocket. The necessary repairs to the pad alone caused a considerable delay.

Army Gets Its Chance

After the much-publicized and spectacular failure of this launching the new Secretary of Defense (McElroy) ordered the Army to go ahead and try for a satellite shot with its Jupiter-C rocket. Under strict military protocol it is correct to say that the Army was "ordered" to do so. Non-military language expressed the true situation much better; the Army, at long last, could do what it had wanted to do for about two years.

The Jupiter-C rocket had already proved itself by throwing its top stage to a distance of 3,300 miles. The rocket consisted of a somewhat elongated Redstone rocket as the first stage, topped by several "clus-

ters" of a solid fuel rocket which is variously called "Baby Sergeant" or "Recruit," since it is a scaled-down version of the Army's Sergeant solid fuel rocket.

The second stage of the Jupiter-C rocket consists of a ring-shaped "cluster" of these rockets. The third stage is another cluster inside the second stage and the fourth stage is a single such rocket on top of the third stage. The firing procedure is that the liquid fuel first stage lifts the upper stages to a great height. Then the upper stages separate from the burned out first stage and are permitted to coast freely for a number of seconds until they have the proper position. Then they are ignited by radio signal and burn in quick succession. The top stage reaches orbital velocity.

Prior to take-off, all the upper solid fuel stages are made to rotate rapidly, as a stabilizing measure. For the purpose of shooting a satellite, the first stage used a different fuel, called hydine, which promised a longer burning time for the same tank volume. This fact required another modification. The fuel pumps of the rocket are driven by decomposing hydrogen peroxide (H_2O_2) which, when catalytically decomposed, generates hot steam. But the peroxide tank for the rocket had the nec-

essary dimensions for holding enough for the shorter burning time of the ordinary fuel. To make the longer burning time possible, a second peroxide tank had to be added.

There was one other problem. The instruments developed for Vanguard were not too heavy for the Jupiter-C, but the Jupiter-C could not accommodate a 20-inch sphere. The instruments, therefore, had to be re-arranged into a cylindrical shape which could be put on top of the fourth stage without noticeably increasing the overall diameter of that stage.

Rocket Separation

It is necessary to digress for a moment at this point to explain in as few words as possible some of the discussions that had taken place prior to any actual satellite shot. One of these discussions centered around the term "separation." The old-time rocket men, when considering a satellite shot, usually just thought of instruments in the nose cone of the rocket. But these instruments had to be telemetered, which means that an automatic transmitter would radio their readings to the ground. At one point, some of the electronics experts began to express doubts. If the instrument package with its transmitter remained attached to the rocket there might be difficulties with telemetering. It might be advisable to build things in such a way that the instrument package, after reaching the orbit, was separated from the top stage of the carrier rocket.

This was not difficult to do. For Vanguard, a device was developed which consisted, in principle, of a spring pushing the satellite away from the rocket. There were certain safety mechanisms; for example the whole mechanism would be made "ready" to work only by the high acceleration of the third stage. The old-time rocket men thought that this was not necessary, but if somebody wanted to do it they did not object too strongly. In the case of Vanguard this device took half a pound of weight away from the satellite itself.

There must have been similar discussions in Russia. Sputnik I was fired with separation. Sputnik II did not have separation. On our side Vanguard has separation and Explorer does not. Both work.

The other discussion was something more serious and had, strangely enough, originated in a somewhat roundabout way. When, some eight or ten years ago, rocket enthusiasts began to advocate satellite shots they were usually confronted with two questions. One was: "How can you be sure that the top stage of such a rocket

will be fast enough to go into orbit?" The other was shorter and more to the point. It was: "How much will it cost?"

That second question was much harder to answer, but there was a way out. If it was possible to show that a combination of existing rockets could reach satellite velocities the question about the price was answered too. For the cost of these existing rockets was known—though possibly not to the public or even to the engineer who had dreamed up the combination—and the expense for the whole could, therefore, be estimated.

The method of combining existing rockets came to be called "shooting with off-the-shelf hardware" and as discussion progressed it came to be realized that this off-the-shelf hardware idea had another strong point in its favor. Just because the rockets would be "off-the-shelf" they would be well-tested rockets, rockets with a high degree of reliability. The opposite point of view was that a rocket especially designed for the purpose would be more efficient.

History has been nearly 100% on the side of the off-the-shelf advocates.

Since the Jupiter-C was to be considered an off-the-shelf rocket the chances for its success were good. And the Jupiter-C did put the first American artificial satellite into orbit on January 31, 1958.

Astronomical Designation

For quick reference it was desirable to devise a system of designating artificial satellites. A suggestion made by Professor Fred L. Whipple of Harvard Observatory and based on the customary system of designating comets was generally adopted.

The first artificial satellite of any year (regardless of its "nationality") is designated by the first letter of the Greek alphabet, Alpha. The second satellite is called Beta, the third one Gamma and so forth. Sputnik I logically, became "1957 alpha," Sputnik II became "1957 beta" and Explorer I became "1958 alpha." But if there is separation, a single shot will place more than one body into orbit. In the case of Sputnik I there were three bodies: the nose cone which had protected the satellite on its way up through the atmosphere, the satellite itself, and the top stage of the rocket which carried it up. In such a case numbers follow the Greek letter and the sequence of these numbers is based on the visual brightness of the object. Again in the case of Sputnik I, the brightest looking object was the rocket itself, since it was the largest. So the rocket was "1957 Alpha 1," the satellite "1957 Alpha 2," and the nose cone

ARTIFICIAL SATELLITES

Name	Designation	Firing Date	First perigee (miles)	First apogee (miles)	Orbital period (minutes)	Inclination of orbit	Satellite weight (pounds)	Total weight in orbit (pounds)
Sputnik I.	1957 alpha	Oct. 4, 1957	156	560	96	65°	184.3	ca. 1100
Sputnik II.	1957 beta	Nov. 3, 1957	145	1056	103.7	65°	1120	ca. 7000
Explorer I.	1958 alpha	Jan. 31, 1958	219	1575	115	35°	18.1	30.8
Vanguard I.	1958 beta	Mar. 17, 1958	220	2513	135	35°	3½	29
Explorer III.	1958 gamma	Mar. 26, 1958	120	2100	121	35°	18.1	30.8
Sputnik III.	1958 delta	May 15, 1958	123	1160	106	65°	2925	ca. 7000
Explorer IV.	1958 epsilon	July 26, 1958	178	1368	110	51°	25.7	38.4
Sputnik IV.								

NOTES:

- Sputnik I. Top stage rocket suffered burn-up during first week of December, 1957, the satellite during first week of January, 1958.
- Sputnik II. Suffered burn-up on April 13, 1958, after completing 2366 revolutions.
- Explorer I. In orbit, lifetime of several years.
- Vanguard I. In orbit, lifetime of about two centuries.
- Explorer II. Fired March 5, 1958. Fourth stage failed to ignite, no orbit achieved.
- Explorer III. Suffered burn-up on June 27, 1958.
- Sputnik III. In orbit, might have burn-up early in 1959.
- Explorer IV. In orbit, lifetime of several years.
- Explorer V. Fired August 24, 1958. Failed to orbit because of freak accident, collision in mid-air of first stage with upper stages after separation.

(which was so hard to see that it was soon lost) became "1957 Alpha 3."

The second satellite of 1958 was a Vanguard test satellite. The third stage of that Vanguard rocket became "1958 Beta 1" while the satellite itself is "1958 Beta 2." (The Vanguard rocket sheds its nose cone on the way up; it does not go into orbit.)

What Has Been Learned

The lessons of the first artificial satellite, Sputnik I, seem to have been more political than scientific. Until the results of the telemetering are made known the main scientific lesson of 1957 Alpha was a revision of our ideas about the density of the atmosphere at high altitudes.

It turned out that the atmosphere, at an altitude of 150 miles, is several times as dense as had been thought. This statement, though correct, is unfortunately apt to be misleading because it can give the impression that there is a considerable amount of atmosphere left at that altitude. This is not so. The atmosphere is incredibly thin and many so-called vacuum tubes on the ground contain more residual atmosphere than the real atmosphere at that height. But it is denser than had been believed.

Lessons from Laika

The main lesson of Sputnik II was taught by the dog Laika. A little background is necessary here. Scientists had known all along that a man in a rocket would undergo two different sensations in succession. While the rocket motors are burning he would be under high accelera-

tion. This could be tested in the laboratory by means of a large centrifuge, which could be made to imitate precisely the degree and duration of the acceleration that would be experienced in actual flight. (The results of the tests were that there is no danger from the high acceleration). As soon as the rocket motors would stop burning, however, the acceleration would not drop to one-g (one gravity, the force we normally experience on the ground) but would drop to zero-g. This could be imitated in the atmosphere by a specific flight maneuver with a jet plane. But the duration of the test was limited to about 32 seconds, usually less. While it was found that 32 seconds of apparent weightlessness did no harm, it could not be concluded that 32 minutes would be harmless because 32 seconds were. Nor, going farther afield, could one conclude that 32 hours would be harmless because 32 minutes were.

It must be stressed that nobody could think of a reason why prolonged weightlessness should cause harm, but there was no proof that it would not. The dog Laika stayed alive and, so far as one can tell from the telemetered heartbeat, unharmed for about 100 hours.

Sputnik II also discovered what is now called the "radiation belt" but at first the telemetered instrument readings were so surprising and therefore confusing, that the Russian scientists were inclined to blame the readings on instrument failure.

Explorer I is, for this reason, usually said to be the satellite that discovered the "radiation belt." The discovery was confirmed by Explorer IV.

Before going into the problem of the radiation belt a few other experiments of the first year of the Space Age must be mentioned. Vanguard I is a small test satellite which confirmed another prediction. Several years ago the so-called "silicon batteries" or "solar batteries" were developed. They consist of thin wafers of the element silicon with high purity essential for the result and they convert light rays directly into electric current. The Vanguard test satellite carries such silicon batteries and they perform in space as predicted.

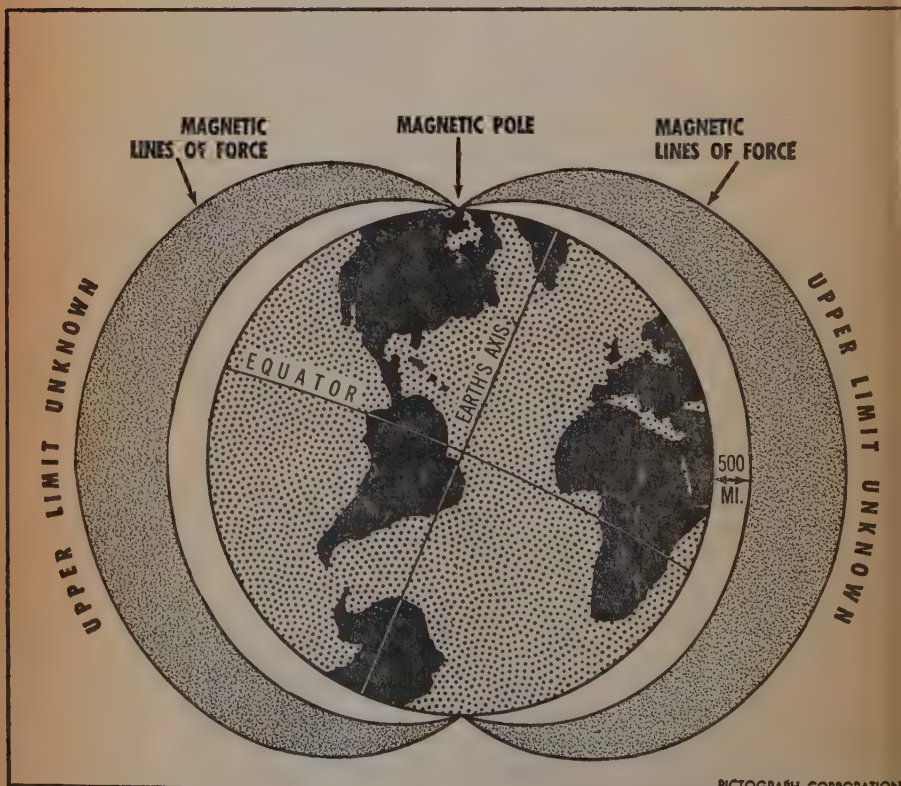
Three experiments which bear some similarity to Laika were performed by the U. S. Air Force. The experiments were called MIA, which stands for "mouse in Able." The Air Force was testing re-entry of nose cones into the atmosphere with the Thor Able rocket over very long ranges. Each of the three nose cones carried a mouse. Though none of the cones was recovered it is known that the mice stayed alive until

impact in the ocean because their heart beat, like Laika's, was telemetered.

The "Radiation Belt"

The most important single discovery of the artificial satellites is the so-called "radiation belt." The name is somewhat misleading because it is not a "belt" around the earth but rather a hollow shell which starts with fair suddenness at an altitude of about 500 miles.

The way the discovery was made was as follows: Explorer I was instrumented to report on several things. One of them was the temperature of the skin and another was the temperature of the inside of the satellite, which might be called its "cabin temperature." Now a satellite in orbit around the earth will be warmed by the radiation from the sun on one side and will radiate some of this heat away on the other side. When in the shadow of the earth it will not receive any radiation (except the small amount radiated into space



PICTOGRAPH CORPORATION

RADIATION SHELL

by the nightside of the earth) while the satellite, when over the daylight side of the earth, will receive an extra dose of heat because it is in the sunlight with the earth behind it acting as a reflector. The cabin temperatures of Explorer I turned out to range from a low of about 45° Fahrenheit to a high of about 85° Fahrenheit.

Another device in Explorer I was to measure radiation other than light and heat. This device stopped reporting at intervals and it was soon noticed that it reported when comparatively near the earth in its orbit and stopped reporting when it was farther away. After a little time, Dr. James A. Van Allen had the idea of subjecting another set of satellite instruments to heavy doses of X-rays in the laboratory. Maybe the instruments in the satellite were overloaded with radiation. They were.

Physicists immediately concluded that this had to be what is known under the German term of *Bremsstrahlung*. The second part of this word "strahlung" means radiation, while the first part means "to brake." The term had been coined originally by Professor Konrad Roentgen, the discoverer of X-rays. His X-ray tube consisted of a stream of free electrons, which are shot through a vacuum to hit a metal plate called the target. In the target the electrons are stopped and X-rays are emitted. A useful English equivalent of the word *Bremsstrahlung* would be "impact radiation"—radiation caused by the impact of sub-atomic particles.

An artificial satellite obviously produced a kind of X-ray tube effect. It moved through a vacuum where free electrons are present and it becomes the target of these electrons. Naturally it begins to produce X-rays.

The current scientific explanation of the radiation shell is as follows: large numbers of electrons (and probably of protons too, although this is not yet established) are emitted by the sun. If the earth did not have a magnetic field, these electrons and protons would simply enter our atmosphere and would disappear in the atmosphere much in the manner in which rain drops disappear in the ocean. But because of the earth magnetic field, these particles are trapped. They become concentrated some distance from the ground, the lower limit of that concentration being around 500 miles. It is highly probable that these concentrations of particles do enter the atmosphere where the magnetic field permits them to do so. This is near the magnetic poles of the earth. The whole somewhat resembles a river that has been dammed up, with the earth's magnetic field providing the dam.

Above that dam the particles accumulate, being steadily replenished by the sun. Over the magnetic poles they drain into the atmosphere, causing the aurorae in the process.

Preview of Year II

The most urgent job that has been handed to the second year of the Space Age by the first year is obviously the exploration of the radiation shell. A good deal has been found out about it by the lunar probe Pioneer, which, even though it did not reach the moon, should be considered a very successful shot.

But for thorough exploration of the radiation shell, a specially instrumented satellite would be superior. It should be placed into a very elongated orbit with a perigee some 200 miles up and an apogee about 12,000 miles away. This satellite would then go below and above (or outside) the radiation shell during every circuit. Its orbital period—the time it needs to complete one trip around the earth—would be almost precisely 5½ hours. Ideally the research job should be done by two satellites, one of them over the equator of the earth in the long orbit just mentioned and another one which goes over both poles.

The orbit of this polar satellite should be as nearly circular as it can be made, and it should be quite close to the earth, say 250 miles out. If the theory that the radiation shell "drains off" over the magnetic poles is correct, it would go through two "radiation funnels" each time, one over the magnetic pole in the north, the other over the magnetic pole in the south.

Other problems for the second year of the Space Age are the "cloud cover satellite" and the "maximum visibility satellite." The latter would be simply a satellite which is as large as possible for its weight: an inflated balloon thrown into an orbit. Preliminary work on this type has already been done.

The "cloud cover satellite" will be of the greatest importance to climatologists for theoretical reasons and to weather research for practical reasons. At present, it is impossible to establish how much of the earth is under a cloud cover at a given moment. Not only is it impossible to establish this for a given moment; it is even impossible to establish it in retrospect for a given day, or for any day for that matter. It can't be done because three quarters of the earth's surface is water where there are no weather stations. And even most of the land surface is without weather stations. But the problem could be solved by a specially instrumented satellite in orbit.

The Coming Flight of the X-15

One of the experiments of the Space Age's second year is going to be one in which a man will experience, for the first time, weightlessness lasting at least ten minutes, possibly a few minutes longer.

The 32-second weightlessness experiments mentioned earlier were made with jet trainers. The method consists in putting the plane into a shallow power dive to give it as much speed as possible. Then the nose of the plane is pulled up and the engine cut to nearly zero at the same instant. The plane will then go through an arc like a thrown stone. While in this arc everything is weightless because the plane follows the pull of the earth's gravitational field without resisting it in any way. And weight, which is not generally realized, is the result of resisting the gravitational pull. It is not caused just by the presence of gravitational pull.

Another way of producing the same effect would be to point a plane up at a slant and make it gather speed on an ascending leg. Then, if engine power is cut, the plane will continue to ascend for a while, just like the plane which gathered its speed by going into a power dive and pulling out of it. Normal airplane engines are not powerful enough to execute such a maneuver, but a rocket-propelled plane can. The X-15 is a rocket-propelled research plane built for such an experiment.

It will be carried first to 40,000 or 45,000 feet by a bomber. Then it will be dropped. While the bomber turns away the pilot of the X-15 will ignite his rocket motors and start climbing. Of course there are going to be many preliminary tests but in the final experiment the pilot will hold his plane on an ascending flight path until its fuel supply is exhausted. The plane should be carried by momentum to a maximum altitude of 100 miles, resulting in both a high altitude record for manned flight and in weightlessness lasting for at least ten minutes.

Another experiment with a man in it is planned but still lacks official approval. In this test, a man would be in a capsule in the nose of a large rocket. The rocket would make a nearly vertical ascent to an altitude of around 200 miles. Then rocket and manned capsule would be separated and they would fall back to the ground more or less side by side. But when they enter the atmosphere the rocket would keep falling while the manned capsule would be retarded by all kinds of air-braking devices. Finally it would land by parachute.

The Russians have made a rather similar experiment with dogs which returned safely. This shows that it can be done.

The reason for using a volunteer pilot after it has been established that the experiment is safe is a simple one. Dogs or other animals can be instrumented. It is possible to telemeter their heartbeat, their rate of breathing, their blood pressure and several other things. All this provides medical experts with the information of how the body reacts. But only a man can tell how it feels.

The Shot to the Moon

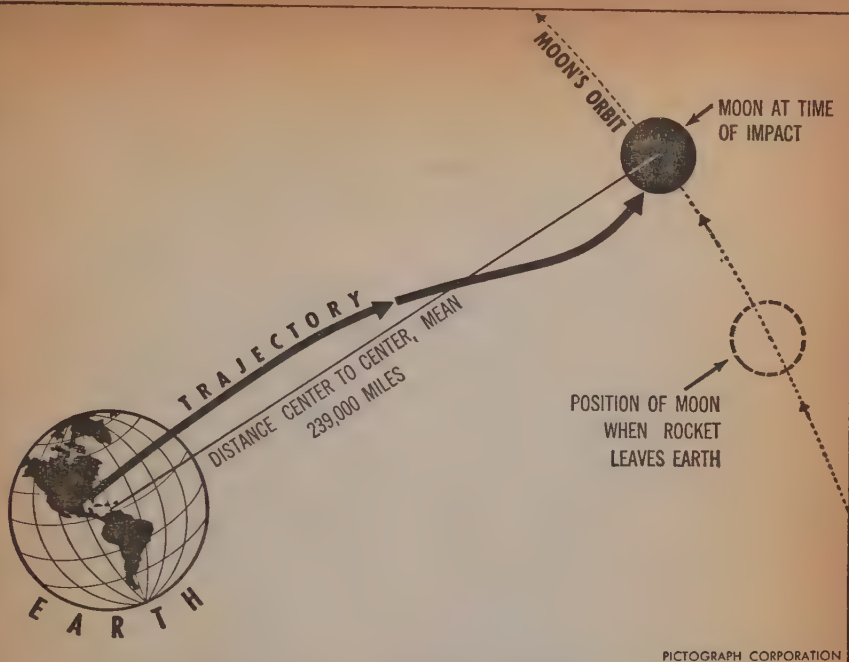
Officially, moon rockets are called "lunar probes" and the second year of the Space Age will see at least four American attempts to reach the moon with a lunar probe.

The principal natural law which governs a shot to the moon is easy to explain. If you drop a body from a height of one mile it will strike the ground with a certain impact velocity. If you drop the same body from a height of two miles it will strike the ground with a higher impact velocity. But the impact velocity will not be twice as high. In other words the impact velocities increase more slowly than the altitudes. Hence there must be a finite impact velocity even for a body falling from infinity. This impact velocity would be very nearly 7 miles per second.

Since it takes the impact velocity to throw a body to the same height which caused this impact velocity the velocity of 7 miles per second has been called "escape velocity," a body leaving the earth with this velocity would be capable of going an infinite distance; hence it would escape from the earth.

Since our moon is only 239,000 miles away and not an infinite distance, it takes in theory, a little less than escape velocity to throw a body to the moon. But the difference is so minor that it is swallowed up in the safety margin which an engineer would build into his rocket so that we might go on assuming that the rocket has to reach escape velocity.

Naturally this velocity must be reached outside the atmosphere, say 250 miles up. Let's assume that the rocket has escape velocity at the 250-mile level and the rocket motors stop burning. The rocket will continue to rise, but it will not maintain its velocity. At the surface, the earth's gravitational pull amounts to 32 feet per second for every second elapsed. For the 250-mile level the figure reads 28.6 feet per second for every second elapsed. This means that at the end of the burning period the upward velocity of the rocket is 7 miles per second. One second later it is 7 miles minus 28.6 feet per second. At the end of the next second it is another 28.6 feet per second less and so forth.



MOON SHOT FOR IMPACT

As the rocket reaches greater distances from the surface the earth's gravitational pull grows progressively weaker. But weak or not, it is still there. However, at a distance of about 211,000 miles from the earth's surface (or 23,500 miles from the surface of the moon) another factor enters into the picture, namely the moon's gravitational attraction. At that distance the moon's pull in one direction and the earth's pull in the opposite direction become equal. Once the rocket has crossed that line it falls toward the moon, pulled by the moon's gravity. It would strike the moon's surface just about four days after the rocket motors stopped burning.

It is impossible to give a precise figure because that would differ from case to case. In the first place the moon is not always the same distance from the earth. In the second place the rocket may have a somewhat higher velocity than 7 miles per second. If the moon is especially near (say that the surface to surface distance is about 220,000 miles instead of 234,000 miles, which is the mean surface-to-surface distance) and the rocket considerably faster than 7 miles per second, the time required for the transit might be down to $2\frac{1}{2}$ days.

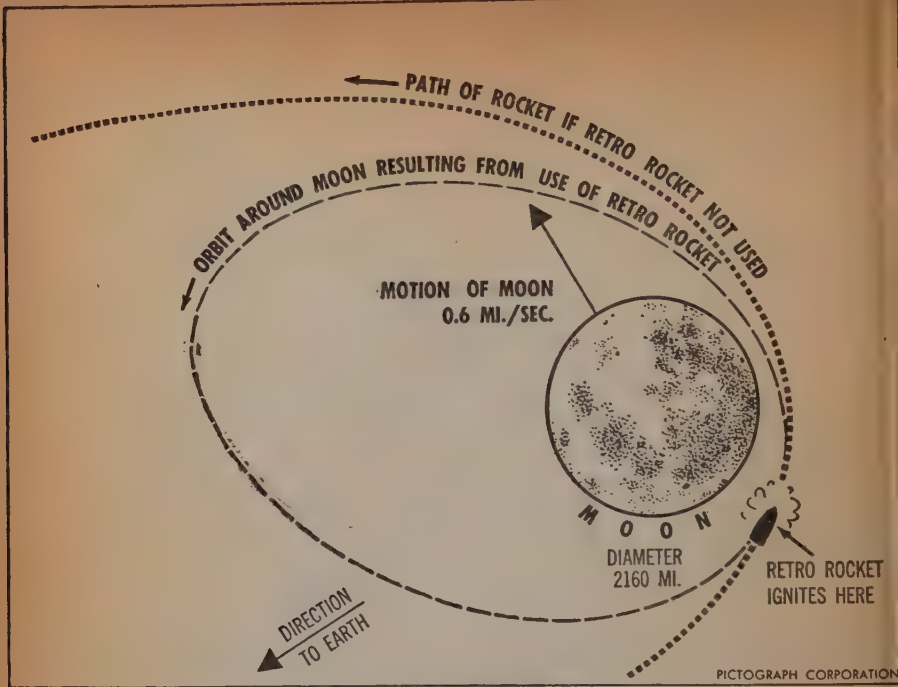
In either case the rocket would have to be aimed not at the moon but at the point in the sky where the moon will be $2\frac{1}{2}$ or 4 days later.

First Lunar Probe

On August 17, 1958, the first attempt to reach the moon with a lunar probe was made. It was to be a shot with a $2\frac{1}{2}$ -day transit period and the rocket was a modified Air Force Thor-Able rocket, standing 88 feet tall on the launching pad. The first stage was a standard liquid fuel Thor rocket. The second stage was an "Able" rocket (also liquid fuel) while the third stage, needed to produce escape velocity, was a solid fuel rocket. On top of that there was the payload which included a fourth rocket, the function of which will be explained shortly.

The attempt failed because of one of those random mishaps which cannot be predicted beforehand and which can hardly be explained afterwards. Seventy-seven seconds after take-off a fuel line burst in the first stage, leading to an explosion.

Now for the fourth rocket which was part of the payload. In order to explain its



LUNAR PROBE

function we have to find out first what would happen if a moon rocket missed the moon by a few thousand miles. In such a case the moon's gravitational pull would force the rocket to loop around it. But the moon's gravitational pull would not be strong enough to hold the rocket. It would be a single loop, a "hairpin curve." If the moon did not move, that curve would be one for which mathematicians have a name, a hyperbola. But because of the moon's movement in its orbit (amounting to 0.6 miles per second) this curve would be distorted so that it cannot be designated by a simple term. At any event, the second leg of that hairpin curve, the so-called "escape leg," would point in the general direction of the earth but would miss the earth by a wide margin.

The reason why the moon could not hold this rocket and force it to become a "moon's moon," a secondary satellite, is very simply that the rocket would be too fast. If the moon is to "capture" it, it must move not faster than $\frac{1}{2}$ mile per second parallel to the moon's surface.

This is what the rocket in the payload was to accomplish. It was mounted "up-

side down" so that it would fire in the direction of its movement. The shot was planned in such a way that this "retro rocket" would fire at the moment when the whole payload started its loop around the moon. The retro rocket would have reduced the velocity sufficiently so that the moon could have captured it as a secondary satellite.

While the first lunar probe of Aug. 1, 1958, was a failure because of a mechanical mishap, the second lunar probe, called Pioneer, of Oct. 11, was a nearly complete success. The rocket was fired from Cape Canaveral at 3:42 A.M., Eastern Standard Time. Twelve hours after take-off, it was 65,000 miles up; but at that time it began to look as if the rocket were off course and would not make a rendezvous with the moon. Naturally, the rocket's speed diminished all the time, just as could be expected, but 24 hours after take-off it became clear that the speed was even less than it should be. The indication was obvious; the rocket, during take-off, had not quite reached the necessary velocity to reach the moon. Preliminary calculations indicated that the "speed shortage" was less than 1,000 feet per second. Not much

as rocket velocities go, but enough to change the whole picture.

Twenty-seven hours after take-off, the maximum distance from the earth was reached. It was 79,173 miles. Then the rocket fell back and suffered burn-up over the Pacific Ocean at about midnight on Oct. 12, having been in space for about forty-three hours. It climbed about thirty times higher than any other rocket ever had.

After it became certain that the rocket was falling back, several attempts were made to fire the still unburned retro rocket. If it had fired, its power would have changed the fall into a very large satellite orbit at a distance of about 30,000 miles from the ground. But the firing mechanism did not respond to the radio command.

However, much had been accomplished, even though no reading from altitudes below 18,000 miles were received. At that altitude the figures for radiation read *Zero*, the rocket was clearly outside the radiation shell. Additional research will have to establish the upper limit.

More lunar probes are ready. There can be little doubt that one of them will succeed during Year II of the Space Age.

The Planetary Probes

The term "planetary probes" has been chosen as a designation for devices which are supposed to leave the earth and to go to one of the neighboring planets. Such planetary probes could either be put into an orbit around the earth first and then go on from there. Or else they could be sent to the neighboring planet from the earth's surface directly.

To understand the principles behind the flight of a planetary probe it is practical to think back to the lunar probes. A lunar probe needs a velocity of 7 miles per second to escape from the earth and to reach the orbit of the moon. If the moon then is at or near the same point of its orbit when the lunar probe arrives either an impact or a capture will take place. What would happen if such a lunar probe, capable of reaching 7 miles per second, were fired into space in such a direction that it will miss the moon by so much that the moon's gravitational attraction will not influence it at all? Then the probe, being fast enough to escape from the earth's gravitational field, will not return to the earth because of the earth's gravity, though a return to earth, as we'll see, will take place eventually for other reasons. But while such a probe is fast enough to escape the earth's gravity it is not fast enough to escape the sun's gravity. The probe, therefore, will go into an orbit around the sun; it will become a small planet.

Astronomical Unit

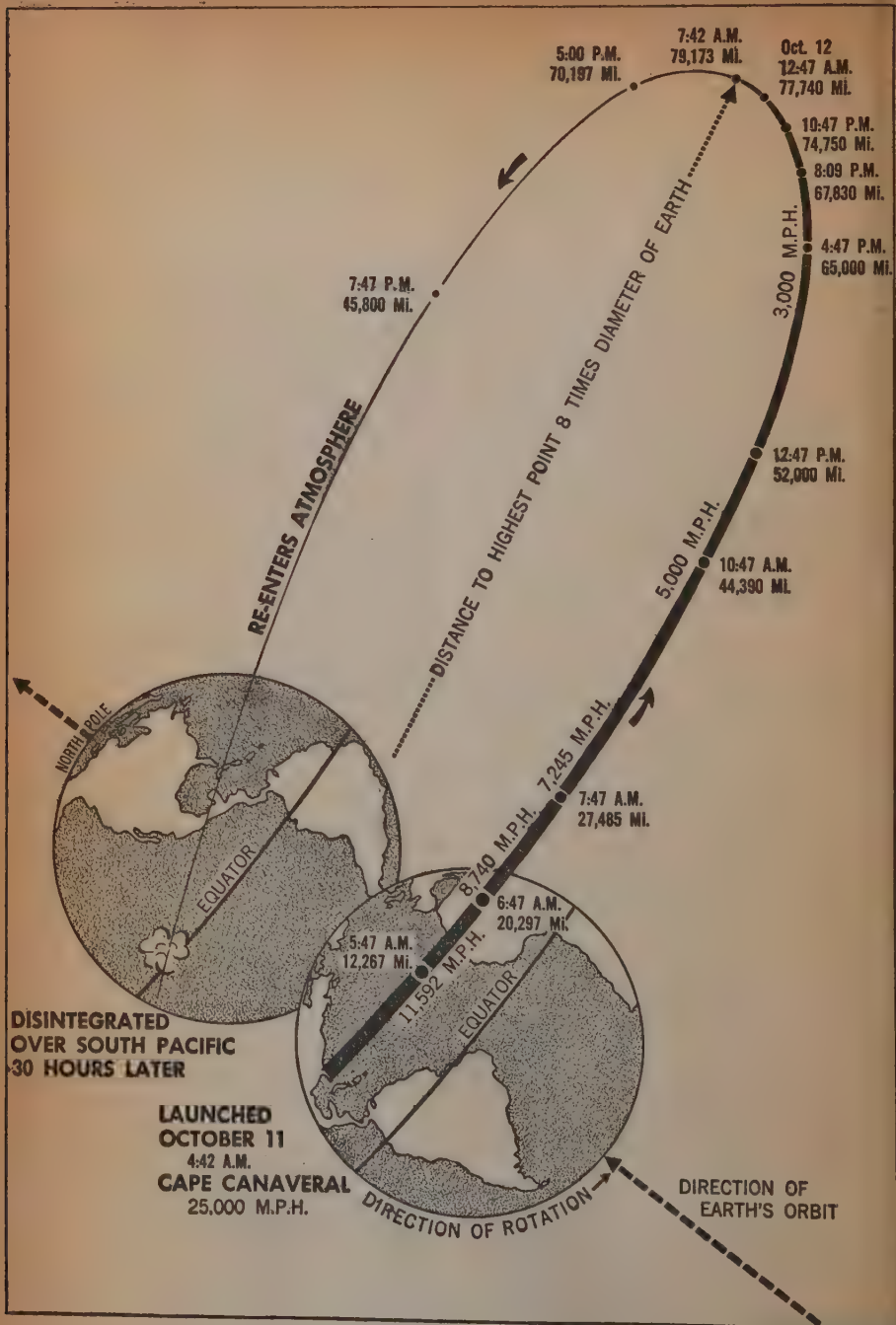
The path of such a probe becomes especially interesting if it is fired at specific times of the day. Our earth goes around the sun with a mean orbital velocity of 18.5 miles per second, at a mean distance of 93 million miles. This distance is known as an Astronomical Unit, or A. U.

Aphelion and Perihelion

During the movement of the earth around the sun its "forward" side is the area which experiences dawn at the moment, while the area which has dusk is the trailing side of the earth. Now if such a probe were fired "ahead" of the earth from a point which has dawn the probe would add its own velocity of 7 miles per second to the earth's orbital velocity. This means that it would be "too fast" to be held by the sun at the distance of the earth. It would recede from the sun and drift, along an elliptical orbit, "outward" in the solar system. It would reach its farthest point from the sun, called its "aphelion," at a distance of 1.3 A. U. or about 121 million miles. This aphelion would be reached 6½ months after take-off, at a point directly opposite from the position of the earth at take-off. After reaching aphelion the probe would start drifting inward in the solar system along the second half of its orbital ellipse. It would reach the point of its orbit closest to the sun, its "perihelion," 13 months after take-off. The perihelion of the probe is in the orbit of the earth; the earth, however passed that same point one month earlier since the probe needs 13 months to go around the sun and the earth needs only 12 months.

Still, the lifetime of this probe would not be unrestricted. Twelve years after take-off the probe would reach its perihelion at the same time as the earth occupies that point of its orbit. The probe would run into the earth and burn up in the atmosphere.

A rocket fired at dusk would behave somewhat similarly. It would subtract its velocity from the earth's orbital velocity and would be "too slow" to stay in the earth's orbit. It would drift inward in the solar system, reaching its perihelion at a distance of 0.8 A. U. from the sun (about 76¼ million miles) five months and one week after take-off. As in the case of the first probe, the point where the orbit reaches its extreme would be opposite the position of the earth at take-off. The probe would then drift outward in the solar system again and reach its aphelion 10½ months after take-off. Its aphelion is located in the earth's orbit, but the earth will not get to that point until six weeks later. Still, even that second probe will run



FLIGHT OF THE PIONEER (Times in Eastern Daylight Time)

into the earth finally, because seven years after take-off both the earth and the probe will meet.

Mars and Venus

Such small artificial satellites would, in themselves, be interesting experiments, but a little additional boost can accomplish a great deal more. Remember that the first probe, the one fired at dawn, reached its aphelion at a distance of 1.3 A. U. from the sun. The orbit of the planet Mars is, in the mean, 1.5 A. U. from the sun. In other words the probe fired at dawn would almost get there. With an additional boost it will get there, needing 260 days for the trip.

Likewise the probe fired at dusk reaches its perihelion at 0.8 A. U. The orbit of the planet Venus is at 0.7 A. U. Again the probe could reach Venus with a small additional boost. It has been made public that the U. S. Air Force has been authorized to fire two probes to Venus, presumably when it is ready to start the experiment. A great deal of preliminary study work has been done on planetary probes; now that the experiment has been authorized it will be necessary, first, to establish the maximum weight of the payload that can be carried and, second, to decide what should be carried within this permissible weight allowance. The reason for tackling Venus first is a simple one. We do know a good deal about the planet Mars but we know very little about the planet Venus because it is always hidden under multiple cloud layers.

Solar Probe

If a probe fired at dusk could acquire a velocity of $18\frac{1}{2}$ miles relative to the earth—i.e., the same as the orbital velocity of the earth—it would, as seen from the sun, stand still. This means that it would fall into the sun in a straight line. This possible variety of planetary probes is known as a solar probe and both American and Russian scientists have expressed great interest in solar probes.

To get an effective solar probe it is not necessary, of course, to make it actually stand still in the earth's orbit. If its velocity were, say, 10 miles relative to the earth, then its remaining velocity in the earth's orbit would be $8\frac{1}{2}$ miles per second. This would be slow enough for the sun to force it around the sun in a tight ellipse which would approach the sun more closely than any natural heavenly body. Though the aphelion of this probe, too, would be in the earth's orbit, it is highly likely that nothing workable would return, just fused instruments and partly molten metal (on the way back it would have solidified again). Readings, there-

fore, could probably only be taken while the probe is on its way toward the sun, until it comes so close that the sun's heat destroys the probe as far as its workability goes.

Planetary probes to both neighboring planets, as well as solar probes, are now within the reach of engineering. How many of them will be used during the second year of the Space Age will depend on factors and considerations other than engineering.

The "Balloon in Orbit Experiment"

The first attempt, made on October 22, to put a balloon into an orbit around the earth, failed because the top stage of the Jupiter-C rocket failed to ignite. But the balloon experiment certainly will be repeated quite often because it is expected to yield important scientific information and it can also be used for other purposes. The first thing such balloons are going to do is to measure air density at very high altitudes, from 150 miles on up.

The reason why a balloon can do this well lies in a factor known as "cross-sectional ballistic loading." The meaning of this term is this: if two bodies have the same shape (say spherical) the air resistance encountered by them is the same since air resistance depends on their cross section. Their momentum does not matter, all that counts is the cross section. But the momentum matters in another way. Physicists calculate momentum (or kinetic energy) according to the formula

$$\frac{M V^2}{2}$$

which means that you multiply the mass by the square of the velocity and divide the result by two. It is clear that two bodies of the same size and shape can have very different kinetic energy, depending on their weight. It is for this reason that a basketball can be thrown a considerable distance, but a toy balloon of the same size has no range worth mentioning. Obviously the lighter body is more hampered by air resistance. Hence a balloon in orbit will show traces of air resistance which a heavier body would not show.

Since a given rocket can carry a given weight into an orbit, a balloon, inflated in orbit, can be much larger and therefore more visible than an instrumented satellite carried by the same rocket.

If the balloon is made of non-elastic material it will still keep its shape even if tiny meteorites make holes in its skin. A punctured plastic balloon would be "empty" after a meteorite hit, but it would not collapse as a rubber balloon (the skin of which has been stretched) would.

FOLLOW THE MUSIC

with

"INFORMATION PLEASE" HOME CONCERTS

Selected and Edited by

IRVING KOLODIN

Music Editor, *Saturday Review*; Program Annotator, New York Philharmonic Orchestra

Introductory Note

If you enjoy listening to recorded music, our section on "Follow the Music" will add substantially to your pleasure. As the title suggests, it is an ingenious plan for you, the listener, to follow the composer's thinking as has never been possible before. And it does this without interfering, in the least, with the music as it is played.

"Follow the Music" and its novel scheme of correlating the important points of interest in such a work as Smetana's "Moldau" or Respighi's "Fountains of Rome" with a minute-by-minute timetable, is ideal for individual or group listening. A few trial runs will enable you, whether musically informed or not, to conduct a concert for family and friends in which you are, literally, the conductor.

"Follow the Music" puts the expert **BESIDE YOU**, by relating the high points of the composition to the exact minute and second when they occur.

By following the descriptive material with a timing device (stop watch or athletic timer is preferable, though a watch with second hand will do), you will know what instruments are being utilized for coloristic effects, what incidents of the story they illuminate, or what phase of a personality they reflect.

NOTE: *The time schedule applies SPECIFICALLY to the RCA Victor records indicated; other versions will be slower or faster, according to the individual preference of the conductor.*

Mode of Procedure:

Check your turntable for correct Long

Play speed (33 $\frac{1}{3}$ revolutions per minute). Most changer mechanisms are pre-set to this speed and will not require adjustment. If you have one that runs slightly faster or slower, this will soon show up, and you should make adjustments in utilizing the timetable.

If you are playing records manually, put the stylus well outside the lead-in groove, to allow yourself ample time to "catch" the first note. If you use the changer mechanism, listen for the "drop," and give yourself a "ready, set" count to "go" with the first note.

Set the timer mechanism at zero: with a little practice you will "click" it exactly at the first note, and thus be synchronized with Irving Kolodin's carefully timed schedule. If you miss, or start too soon, better do it again, for the enjoyment of the music will be spoiled if you are too far off. A few trial runs will provide all the skill required.

Suggested Procedure:

Listen to the composition as a whole, noting the occurrence of the different movements or sections as correlated with the time specified. This will provide a good check on turntable speed, and accustom you to the minute and second divisions. Then: watch for the smaller units of time, and pick up the effects as they occur. Listen to one selection, such as "The Moldau" a few times, to get the knack of starting and watching: it will also point up the difference between hearing music and listening to it, make **YOU** an active participant and greatly add to your enjoyment.

S M E T A N A

Toscanini—NBC Orchestra

The Moldau

The "Moldau" is the most popular of Smetana's works as well as one of a six-part cycle of tone poems titled "My Fatherland." An older countryman of Dvorak, Smetana did much to bring into being a distinctively Czech music in which the folk songs and dances of

his native land were utilized for the first time. Though he is well known for such lively works as "The Moldau" and his comic opera "The Bartered Bride," Smetana lost his hearing at the age of fifty and spent a decade of misery before his death in 1874.

<i>minutes</i>	NARRATIVE	<i>minutes</i>	INSTRUMENTATION
Beginning to 1:53	A description of the springs from which the river rises	Beginning: :58 1:25	Woodwinds, strings pizzicato Strings with main theme Second part of theme
1:53 to 2:45	It flows through the meadows	1:53	Strings again, with theme in major, and broader
2:45 to 3:35	Through the woods	2:45	Brass fanfares, with hunting calls
3:45 to 5:00	Past the fields, in which a peasant wedding is taking place.	3:45	Peasant dance strain in strings ("Polka" motive)
5:00 to 7:25	A quieter section, suggesting nightfall, and the legends associated with the river at night	5:00	Woodwinds and strings, followed by a flute solo
7:25 to 8:00	The music broadens out, as the river grows in size.	7:25	"Wave" motions of the woodwinds, as at the beginning
8:10 to 9:20	Agitated action, as it flows through the rapids of St. John	8:35	Percussion in background, cymbal crash as waters foam
9:40 to 9:50	It becomes a majestic flow as it approaches Prague.	9:40	"River" theme in full orchestra
9:50 to 10:55	It vanishes, far in the distance.	9:50 10:30	Great climax, with timpani rolls and cymbal crashes Dying away

RIMSKY-KORSAKOV

Fiedler—Boston Pops

Russian Easter

In its earliest form, the overture was a prelude to something on the stage, generally an opera, sometimes a spoken play. Gradually it became a form of expression in itself, usually on a dramatic or literary theme. Rimsky-Korsakov turned it to another usage, to describe

the pageantry and color of a "Russian Easter" service. In this brilliant narrative for orchestra, the instruments themselves become the "cast of characters," as they give dramatic excitement to the traditional chants utilized.

<i>minutes</i>	NARRATIVE	<i>minutes</i>	INSTRUMENTATION
Beginning to 3:45	Introductory section, depicting the interior of a Russian Orthodox Church at Easter time. This was known as the "Bright Holiday," because of the colorful music and dress associated with it.	Beginning:	Traditional chant "Let God Arise," in solo violin and clarinet
		:53	"An angel wailed" introduced by the 'cello.
		1:20	Elaboration in trombone muted trumpet, tuba, etc.
		2:45	Woodwinds
3:45 to 7:50	Main body of the overture, in which Rimsky musically depicts the service: the congregation, the reading of the sermon by the sexton, the chanting of the priests, the jubilation of the whole gathering.	3:45	"Let them that also hate Him flee before Him" (full strings)
		5:15	"Christ is Risen" (High strings, brass)
		5:50	Reading by the sexton (strings and trumpet)
		6:45	Chanting of the priests (trombone)
		7:50	Jubilation
7:50 to 12:55	A brilliant concluding section, in which all the themes are combined in a medley of effects	8:00	Full orchestra
		8:40	Climax, with cymbal
		9:10	"Christ is Risen" in brilliant setting
		9:45	Lyric theme, in strings
		10:05	Solo violin
		10:35	Brass fanfares
		11:45	Coda, full orchestra, with brass predominating

GERSHWIN

Gould—Orchestra

An American in Paris

George Gershwin accomplished many things in his relatively short life of thirty-nine years, but few more striking than his success in making a symphony orchestra talk American. He really accomplished his purpose in "An American in Paris," in which a fresh and re-

laxed atmosphere is established with the opening "walking theme," jaunty and assured, and sustained through the trumpet "in a hat" effects, the xylophone, bells, and snare drum writing, down to the final "blue" chord.

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 3:15	The American goes off on a walk. The weather is pleasant and there are many other walkers, male and female. Taxi horns honk in the background: a dance tune blares from a cafe, and he stops for a drink.	:26 1:30	First walking theme Taxi horns (repeated) The dance tune ("Maxixe"). He pauses for a moment.
		1:50 3:10	2nd walking theme French horns
3:15 to 4:25	The music takes a quieter trend, as the American thinks of home.	3:15	Strings, with English horn, then oboe
4:25 to 6:00	The walk resumes, in a brisker vein.	4:25 4:45	Transition 2nd walking theme, with xylophone, bells, etc.
6:05 to 7:10	He pauses to rest, and finds himself approached by a stranger. The music suggests she is feminine, and interested in him. His part of the dialogue suggests: "Some other time."	6:15 6:30 7:10 7:28	Solo violin, in a coquettish vein, suggests an amorous approach Answer in the flute The dialogue breaks off Jazz strain, in blue mood (trumpet with "felt hat" mute)
7:28 to 11:40	The nostalgia returns, and this time settles down, heavily.	8:00 10:40 11:00	The strings elaborate Cymbal crash at climax Blues still hang on
11:45 to 15:15	He meets a friend from home, and they break into happy conversation.	11:45 13:50	Jazz theme, in a happy mood, building up to <i>Grandiose</i> climax
15:15 to 17:10	The walk resumes, with the American joined by his friend, in a mood for adventure.	14:40 15:15 16:25 17:00	The tuba has a ribald comment. Walking themes, taxi horns, etc. Coda Ending, on a "blue" note, but not in a blue spirit . . .

PROKOFIEV

Reiner—Chicago Symphony

Lt. Kije

Serge Prokofiev had a strain of humor that asserted itself in his early musical works, some of them entitled "Sarcasms." While composing a number

of fine symphonies and concertos, he never lost it, as we know from the "Classical" symphony, "Peter and the Wolf" as well as "Kije."

<i>minutes</i>	NARRATIVE	<i>minutes</i>	INSTRUMENTATION
Beginning to 4:05	Prokofiev's "Lt. Kije" deals with a man who was, actually, a typographical error. In scanning a list of army personnel, the Czar's eye was attracted by what he took to be a name, but was really the equivalent of "etc." In order to avoid embarrassing him, Lt. "Etc" was provided with a life history, romance, even burial.	Beginning:	Trumpet fanfare, announcing Kije's birth
		:25	Snare drum, piccolo, flute pronounce march associated with Kije.
		1:15	Buildup in full orchestra
		2:05	Brass fanfares
		3:30	Reprise of opening trumpet call
4:20 to 8:30	<i>Romance</i> The "hero" is shown in his romantic character courting and wedding a sweetheart.	4:20	Lullaby theme
		5:15	Celesta and saxophone develop the mood.
		6:10	More stately version
		6:30	Strings, bassoon
8:30 to 11:20	<i>Wedding</i> The wedding is arranged, guests invited, etc. The ceremony is followed by dancing and rejoicing.	8:30	Brass announce the ceremony to come
		8:55	Dance theme in the trumpet
		10:00	Brass again
		10:35	Combination of themes
11:20 to 13:50	<i>Troika</i> A troika carries the wedding party to a tavern, where there is dancing and drinking, and lively songs.	11:20	Introduction, brass strings
		11:45	Troika theme (string brass)
		12:30	Bassoon, for comic effect
		13:25	Troika, with piccolo added
14:00 to 19:55	<i>Death and Burial</i> As accords his rank, Kije is given a military funeral, and mourned by his cohorts, though in a musical setting that suggests some comic overtones.	14:00	Trumpet call, as at beginning
		14:30	"Funereal" music
		15:05	Prior themes transformed in strings and woodwinds
		15:25	Wedding music
		18:15	Mock dirge
		19:25	Fanfare, as at beginning

GEORGES ENESCO

Stokowski—Orchestra

Roumanian Rhapsody No. 1

In his long active life, Georges Enesco easily established himself as Rumania's most eminent musician. Enesco wrote a good deal of music in many elaborate

forms: operas, symphonies, etc.: but he is most widely known for the two "Roumanian Rhapsodies" of his early years.

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 1:30	Introduction In this lively work of 1907, Enesco made brilliant use of the scheme devised by Liszt for his "Hungarian Rhapsodies" of the 1850's.	Beginning: :40 :55	Clarinet plays first phrase of folk song: "I have a coin and I want a drink." Oboe joins Strings Elaboration to
1:30 to 3:05	First Theme in Full	1:30 2:10	Strings, with full orchestra Divided strings and winds
3:05 to 3:15	"Sirba" (Theme II)	3:05	Woodwinds and strings
3:15 to 4:40	Return to Theme I	3:15 3:35 4:00	Solo viola, bassoon Full strings Development
4:40 to 5:05	Theme III (Minor)	4:40	Strings
5:05 to 6:10	Fantasy	5:20	Theme III (Minor)
6:10 to 7:05	"Hora" dance theme	6:10 6:25	"Hora" introduced by solo flute Picked up by various woodwinds
7:05	First climax (Theme II)	7:05	Strings, cymbal
7:40 to 8:50	"Hora" developed	7:40 8:00 8:20 8:50	Strings, woodwinds, etc. (in turn) Percussion added Original effect, produced by glissando in violins Woodwinds, brass
8:50	Previous themes reprised	10:05	Glissando effect, with horns in background
10:30 to 10:55	Slow interlude	10:30	Woodwinds
10:55 to 11:15	Coda	11:00	Harmonics, glissando, etc.

TCHAIKOVSKY
Toscanini—NBC Orchestra
Romeo and Juliet

Of the many treatments of "Romeo and Juliet" in music—Berlioz, Gounod, Prokofiev among others—Tchaikovsky's is the most direct and vivid. His broadly passionate themes may not be pure

Shakespeare but they express a warm view of the primary elements—love and hate, devotion and deception—which have caused the story to endure.

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 5:10	Introduction (Andante) For purposes of his musical story, Tchaikovsky selected four key elements of Shakespeare's play and provided them with an easily recognizable musical parallel.	Beginning:	Friar Laurence music, in clarinets and bassoons
		1:00	Juliet's music in flutes and clarinets over strings.
		2:00	Friar Laurence
		3:00	Juliet
		4:25	Timpani, as bridge to next section
5:12 to 10:05	Overture (Allegro giusto) A powerful outburst to suggest the strife of the Montagues and Capulets launches the main body of the overture. In contrast to it is the familiar singing melody (popularized in the words "Our love") which characterizes Romeo's love for Juliet.	5:12	Full orchestra, with horns and trumpets dominating
		6:15	More intense "strife"
		7:00	It quiets down
		7:15	Romeo theme, in English horn
		7:35	Second part, in strings
		8:15	Flute joins horns
		10:05	Climax
10:15 to 15:35	Fantasia As Tchaikovsky called his work an "Overture-Fantasia after Shakespeare," he was not restricted in choosing a combination or succession of ideas.	10:15	Strife motive
		11:15	Trumpets prepare a climax
		12:30	Juliet's bedchamber recalled
		13:05	Romeo's love theme
		15:25	Strife again
		15:30	Friar Laurence is recalled
		15:35	Timpani outburst, suggesting tragedy of poison
15:35 to 18:02	Conclusion (Moderato) A résumé and summary of the preceding events, heavily colored by the theme of Friar Laurence and the two love motives.	15:50	Strings, in a minor transformation of Romeo theme
		16:25	Juliet's music
		17:15	The two together, suggesting their reunion in death
		17:45	Timpani, in a harsh reminder of strife

RICHARD STRAUSS

Reiner—Vienna Philharmonic

Till Eulenspiegel

A world celebrity at twenty-five, Richard Strauss lived to see the works denounced as "scandalous" by some moral-minded critics become staples of the concert repertory. In a way, his per-

sonality found a predestined outlet in the tale of "Till Eulenspiegel," for his mocking writing upset some staid minds as much as the fictitious rogue did the bodies of those who made him famous.

<i>minutes</i>	NARRATIVE	<i>minutes</i>	INSTRUMENTATION
Beginning to 1:35	<i>Introduction</i> Till Eulenspiegel is a legendary figure in German (also Dutch) folklore whose pranks ranged from the malicious to the scandalous.	Beginning: :15 1:05	Strings proclaim a "Once upon a time" atmosphere, First theme (horn) Second theme (clarinet)
1:40 to 3:40	<i>1st Adventure</i> Till invades a town, on market day. He causes a horse to run away, spreading confusion.	1:40 2:50 3:20	First theme, worked up. The noisy instrument is a ratchet (slat on wooden wheel). Mocking transformation
3:40 to 5:00	<i>2nd Adventure</i> Disguised as a priest, Till goes about in an unctuous manner. But the rogue in him peeps out.	3:40	Churchly woodwinds and brass predominate, but the clarinet reminds us of Till's presence.
5:02 to 6:20	<i>3rd Adventure</i> Till in a romantic mood, is captivated by a pretty face.	5:02 6:00	The strings show him in loving light. Rejected, he is angry
6:25 to 7:40	<i>4th Adventure</i> A group of Philistines approach. Forgetting his rage Till makes fun of them.	6:25 7:25 8:20	Sober strings and woodwinds The joke at its funniest The oboe warns he will come to no good end.
8:55 to 11:20	A free development of previous themes	8:55 11:00	Horn as at the beginning: Approaching climax
11:20 to 13:20	Till before the judge. He must face judgment. He sneers at it. The death sentence is passed.	11:20 12:15 12:50 13:00	Ruffle of drums Clarinet, more so "Death" (trombone) . . . A final squeal (clarinet).
13:25 to 14:40	<i>Epilogue</i> Not such a bad scamp after all.	13:30 14:40	"Once upon a time" (strings) "He will be remembered"

BEETHOVEN
Munch—Boston Symphony
Coriolan Overture

Beethoven made so many innovations in music that it is but a footnote to his historic career that he virtually invented the concert overture—that is, a brief

work of dramatic character *not* designed to be played before a stage presentation, but illustrating the main elements of a plot.

<i>minutes</i>	NARRATIVE	<i>minutes</i>	INSTRUMENTATION
Beginning to :15	Introduction Gaius Marcius Coriolanus defied the Roman tribunes of his time (400 B.C.) and was exiled. He organized an army and returned with the intention of destroying the city.	Beginning:	The heavy chords of the full orchestra (strings pre- dominating) provide a cur- tain rise on the drama to come. They also return at several later points.
:15 to 2:00	Exposition The military or political power to resist Coriolanus (Coriolan is the German form) are unavailing, but pressure is finally put upon him by his mother, wife and son, who are sent out from Rome to plead with him. He finally gives in and the city is saved.	:15 1:02 1:30	A compact but forceful theme typical of Beetho- ven's ability to pack a great deal of meaning into a few notes is worked up to cli- max (mostly strings) Strings, with oboe outlining a melody with a pleading character, expressive of the pressures upon him. They are angrily rejected (chords of the opening)
2:00 to 5:20	Development The drama is artfully devel- oped by Beethoven in the alteration and elaboration of the thematic material tradi- tionally termed the "devel- opment section." Thus he makes the form and the con- tent a close entity.	2:00 2:55 3:25 4:00 4:40	Resistance continues Opening chords find him still unmoved. The pleading theme, in the strings, with more urgency More conflict Another appeal, plaintive in the minor
5:20 to 6:00	Recapitulation and Coda	5:20 5:40	Opening chords, not so reso- lute His wavering is heard in the crumbling of his theme. It dies away, suggesting his own death in disgrace.

DUKE ELLINGTON

Ellington—Orchestra

Profiles: Portrait of Bert Williams

Duke Ellington's creations include many pieces for his band and the distinctive musicians it has included over a thirty-year period. One of the outstanding masters it has developed was Charles "Cootie" Williams, who made a specialty of making the trumpet talk

by means of mutes. As he uses each, the narrative grows more excited, as he is answered by other members of the band, especially Barney Bigard, on clarinet, and Trombonist Nanton (who, because of his own skill with mutes was known as "Tricky Sam.")

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 1:15	<i>First Chorus</i> Bert Williams was one of the first Negro entertainers to make a Broadway success and to star in such a revue as Ziegfeld's "Follies." He was a master of pantomime, particularly in depicting the action of a poker game. In a composite portrait, Ellington shows the many sides of Williams, who also sang a famous song "Nobody."	Beginning:	Baritone saxophone introduction
		:15	Muted trumpet, in derby hat
		:55	Clarinet
1:15 to 1:30	<i>Variation</i>	1:15	Full band
1:30 to 2:20	<i>Second Chorus</i> An allusion, perhaps, to the dialogue in which his partner (Walker) tried to persuade him to take part in a bank robbery. After explaining his fears of getting caught and going to jail, Williams delivered the classic punch line: "And everybody knows you can't smell no flowers through a stone wall."	1:30	Muted trumpet ("Preaching")
2:25 to 3:10	<i>Final Variation</i>	2:25	Muted trumpet, with cup mute
		2:40	Answered by trombone
		2:50	Trumpet with plunger mute

RESPIGHI

Toscanini—NBC Orchestra

Fountains of Rome

A Roman by birth, Ottorino Respighi mirrored, musically, many aspects of his beloved city, in "Pines of Rome" and "Roman Festivals" as well as "Fountains of Rome." A pupil of Rimsky-Korsakov, Respighi developed an unsurpassed

command of orchestral effects which he used for color effects as vivid as any master painter's. An appreciation of this skill enables the listener to "see," with his ears, what was in Respighi's mind from start to finish.

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 3:45 (Dawn)	<i>Fountain of Villa Giulia</i> The first of the four fountains depicted by Respighi is on the outskirts of Rome. Dawn is breaking, and a herd of cattle is driven by.	Beginning:	Strings and woodwinds in a pastoral mood
		1:20	Piccolo and flute, also harp
		2:00	Cellos, plus oboe
		2:15	Celesta, suggesting cow bells
3:45 to 6:25 (Morning)	<i>Fountain of Triton</i> This fountain is surmounted by statuary depicting Triton, son of Neptune. He is blowing on a sea shell. Respighi suggests this in blasts on the French horn, leading to dance music in which an imaginary group of Naiads romp.	3:45	French horn blast, repeated four times
		5:00	Dance of the Naiads
		6:05	Cymbal crash, as dance reaches its climax
6:25 to 9:30 (Midday)	<i>Fountain of Trevi</i> A great figure of Neptune in a chariot drawn by a sea horse dominates this fountain. From this design Respighi derived the concept of a magnificent procession of Neptune's court.	6:30	English horn, followed by brass and strings
		6:50	Percussion joins in
		7:35	Full orchestra, as procession passes
		8:15	It begins to recede
9:35 to 14:45 (Evening)	<i>Fountain of the Villa Medici</i> The character of this music is related not only to time but to place, for the fountain is a great saucer shaped bowl, with the overflow dripping into the pool beneath.	9:35	Harp, bells and celesta, joined by flute, English horn and French horn
		10:25	High strings, also celesta
		12:30	Closing section begins, with birds and bell sounds
		13:10	Distant chimes
		14:00	Vespers, in cellos

PAUL DUKAS

Toscanini—NBC Orchestra

Sorcerer's Apprentice

During his long career (he died in 1935) Paul Dukas wrote nothing more strikingly conceived than this scherzo

of 1897, when he was thirty-two. It has had a host of imitators, but nothing to equal its wit, color, and charm.

minutes	NARRATIVE	minutes	INSTRUMENTATION
Beginning to 2:10	<i>Introduction</i> The story of an apprentice who steals his master's password to create a magic spell but lacks the one to avert disaster was borrowed by Goethe from an old folk legend. In his Scherzo, Paul Dukas has paralleled very closely the high points of the story.	Beginning:	Mysterious atmosphere in the strings, this music hereafter associated with the sorcerer
		:14	Clarinet, broom theme
		1:15	Brief anticipation of the scherzo
		1:50	Theme in brass, suggesting cries for help
2:15 to 9:05	<i>Scherzo</i> From a rather quiet beginning, as the broom goes about bringing in pails of water, the music of the scherzo rises to a pitch of excitement: recedes as the sorcerer's apprentice breaks the broom in half and only succeeds in doubling its water-carrying power, and rises to an even higher peak of excitement. Dukas utilizes the division of the story cleverly to arrest the first part of the scherzo.	2:15	Bassoon, with broom theme
		3:05	A more active form in the brass (muted)
		3:50	Triangle, etc., in percussion background
		4:10	More themes brought in
		5:10	A climax builds
		5:40	First signs of panic
		5:55	Cries for help
		6:30	The broom is broken in two (Bassoon and clarinet pick up tempo)
		7:45	New cries for help
		7:50	Water is everywhere
		8:40	Climax approaches
		9:00	The sorcerer takes over
9:10 to 10:05	<i>Epilogue</i> As peace settles down on the scene again, the atmosphere of the beginning returns.	9:20	Strings, as at the beginning
		10:00	Final outburst in full orchestra—"Begone," raps the sorcerer.

CARL M. VON WEBER*

Toscanini—NBC Orchestra

Invitation to the Dance

Weber's life was ended by consumption when he was only 39 (1826) but he contributed much of importance to music: such operas as "Der Freischuetz," "Oberon" and "Euryanthe," each with a famous overture, much brilliant piano music, many ways of doing things that

were carried out by Chopin, Schumann, and Mendelssohn. Among his greatest admirers was the French composer Hector Berlioz, who made his fine arrangement of "Invitation to the Dance" for a Paris production of "Der Freischuetz," which it has long outlived.

minutes NARRATIVE

Beginning *Introduction*
to 1:20 Originally composed for piano, Weber's "Invitation to the Dance" has become one of the most popular works in the orchestral literature as the result of its arrangement by Berlioz. It also has a separate fame as the background for Fokine's famous ballet "Spectre de la Rose."

minutes INSTRUMENTATION

Beginning: 'Cello Introduction (male guest extending an invitation)
:09 Woodwind response (the lady is interested)
:20 Further inquiry by 'cello
:35 The clarinet joins the conversation
1:00 It grows more animated, as they take to the dance floor

1:23 to *Waltzes*
7:15 Weber provided the example for all later composers who grouped a series of waltzes into a sequence, including Chopin, Strauss, Waldteufel, etc. A composition of 1819, it was the first concert-waltz ever composed, and still one of the best.

1:23 Pickup by full orchestra
1:23 First waltz, begun by strings
1:55 Woodwinds, pizzicato strings
2:12 Full orchestra
2:35 Introduction reprised
2:45 Second waltz: strings, with horn punctuation
3:35 Elaborated
3:50 Oboe prominent
4:10 More elaboration
4:35 Brass, for contrast
6:00 More brilliant orchestration
7:00 Coda, leading to

7:15 *Postlude*

7:15 'Cello "speaks" to clarinet, as at the beginning, thanking her for the dance as she returns to her place.

MAJOR U. S. POST-WAR POLICY DECISIONS

The Marshall Plan

After World War II, recovery programs among the nations of Europe, as well as contributions from the United States, were unco-ordinated. In June, 1947, Gen. George C. Marshall, then Secretary of State, asserted the need for integrated recovery efforts against "hunger, poverty, desperation, and chaos." Congress, in April, 1948, appropriated \$5.4 billions. The United States established the Economic Co-operation Administration while European nations set up the Organization for European Economic Administration. Under a system of counterpart funds, each participating government set aside in its own currency amounts matching the aid it received. As the European Recovery Program, Marshall Plan aid was economic in its early stages but with the worsening international situation—particularly after Korea—emphasis was shifted to rearmament. When ERP ended in Dec., 1951, a year ahead of schedule, it had cost \$11 billion but substantial amounts had been committed to collateral military ventures.

Truman Doctrine

President Truman took a decisive step in March, 1947, when he obtained from Congress authorization to spend \$400 million to aid Greece and Turkey. His move followed directly on withdrawal of aid to those countries by Great Britain, whose

resources were dwindling. Greece suffered from Communist guerrilla infiltration; Turkey lived under threat of Russia's constant pressures. Besides the appropriation, Congress authorized shipment of military equipment and dispatch of a military and technical mission. By 1950, the Red guerrillas had given up the struggle and in Turkey results were much more immediately successful. The Truman Doctrine is regarded as the first significant experiment in the policy of "containment," although it preceded by four months the intellectual presentation of this policy by George Kennan.

Eisenhower Doctrine

In January, 1957, President Eisenhower, noting the unsettled state of the Middle East, asked authority from Congress to co-operate with any nation in that area for economic development, to undertake programs of military assistance for such nations which desired it and to use U. S. armed forces to protect Mid-East countries "requesting such aid" against "overt armed aggression from any nation controlled by international communism." In March, Congress authorized expenditures up to \$200 million for 1957. Anti-Communist declarations were immediately forthcoming from Lebanon and Libya and more important, King Hussein of Jordan took a strong stand against the leftist drift in his country. Arms also were shipped to the area to counter the build-up of Soviet military equipment in Syria.

U. S. POST-WAR TREATIES

North Atlantic Treaty Organization (NATO)

(Formed: April 4, 1949)

Members: United States, Canada, Iceland, Norway, Great Britain, Netherlands, Denmark, Belgium, Luxemburg, Portugal, France, Italy, Greece, Turkey, West Germany

In 1948, the United States government began talks with the signers of the Brussels Pact and Canada concerning the formation of a regional defense treaty in the North Atlantic area. It represented the first important security pact with European nations since the French Alliance of 1778 and marked the first time in United States history that the United States pledged itself to go to war in support of allies before the

actual outbreak of hostilities. The U. S. Senate ratified the treaty July 21, 1949.

The United States, acting under Article 3 of the Treaty, began a program of military assistance which at the end of the fiscal year 1957 amounted to nearly \$10 billion. Roughly half of all United States military assistance has gone to members of NATO. However, approximately 85% of NATO's military preparation has come from the European countries themselves, increasing from about \$6 billion in 1949 to \$12 billion in 1955. The United States has nevertheless assumed almost one-third of the cost of equipment and the facilities of mutual military bases.

NATO now united most of the countries of the Atlantic community plus Greece, Turkey, and West Germany, which were added to the original membership. Its organization comprises the top foreign, economic, defense, and financial ministers

of the member countries. The military responsibilities of NATO are divided into two major commands—SHAPE for Europe and SACLANT for the Atlantic Ocean area. SHAPE at present has 47½ divisions. SACLANT relies on naval strength to control the sea lands of the North Atlantic.

Western European Integration

Members: France, Italy, West Germany, Belgium, Netherlands, Luxembourg

A gradual process, the first step of which came in 1944 when Belgium, the Netherlands, and Luxembourg formed the Benelux Customs Union. Next, sixteen Western European nations created in 1948 the Organization for European Economic Co-operation (OEEC), to reduce import limitations and advance convertibility of currencies through the European Payments Union. Then followed establishment of the European Coal and Steel Community (1952), by which France, Italy, and West Germany erected a supranational organization, which has set up a common market in coal and steel. These successes led to creation by the same six nations, in March, 1957, of Euromarket, to stimulate trade by eliminating customs barriers, creating common tariffs, cutting exchange restrictions, etc., and of Eurotom, an atomic energy pool.

Southeast Asia Treaty Organization (SEATO)

(Signed: Sept., 1954)

Members: United States, Great Britain, France, Australia, New Zealand, Pakistan, Thailand, Philippines

Weaker than NATO, SEATO does not include rigid provisions for collective defense but states that armed attack on any member would be regarded as a threat to safety of the others. SEATO represents the United States' desire to counterbalance the power of Communist China. Yet three major non-Communist members—Indonesia, Burma, and India—are not members.

Anzus Treaty

(Effective 1952)

Members: Australia, New Zealand, United States

This security treaty involves a commitment less comprehensive than that of NATO and closer to the SEATO obligations.

Article 3 stipulates that the parties will consult whenever in the opinion of any of them the territorial integrity, political independence, or security of any of the parties is threatened in the Pacific. Under Article 4, each party recognizes that an armed attack in the Pacific area on any of the parties would be considered dangerous to its own peace and safety, and agrees to act to meet the common danger in accordance with its constitutional processes.

Baghdad Pact or Middle East Treaty Organization (METO)

(Signed: Nov., 1955)

Members: Turkey, Iraq, Iran, Great Britain, Pakistan

Although it inspired the pact, the United States is not a member. The pact's purpose is to provide a defense shield on the northern tier of the Middle East against Soviet penetration.

Organization of American States (OAS) and the Rio Treaty

In Sept., 1947, eighteen Latin American countries (Nicaragua and Ecuador were excluded) and the United States signed at Rio de Janeiro the Rio Treaty under which all signatories agreed to protect against aggression every state in the Western Hemisphere. In Apr., 1948, all the American nations (twenty-one—Canada not included) joined in the Organization of American States (OAS) to implement the Rio Treaty and form a collective security system.

Reds' NATO—Warsaw Pact

(Signed: May 14, 1955)

Members: Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, U.S.S.R.

The Warsaw Pact was prompted by the admission of Western Germany to NATO and may be considered as the Communist equivalent in Eastern Europe to NATO in Western Europe. Article 4 of the agreement contains the same provisions as Article 1 of NATO, stating that an attack on one shall be regarded as an attack on all. Article 5 provides for a unified military command.

(See Headline History listing events of 1917-57, pages 67-71. For summaries of other Conferences and Treaties, see pages 252-56.)

HEADLINE HISTORY OF OUR TIMES

Based on Newspaper Accounts of Important Events

The Headline History is based on the date when historical events came to the knowledge of the public through the newspapers. The events themselves may have occurred at a different date. For events previous to Headline History, see Page 817, for Historical and News Events from Ancient to Modern Times. This is compiled by the Encyclopaedia Britannica staff, and it begins with the Battle of Actium in 31 B.C. It includes a chronology of World War I.

See also Post-War Treaties and Decisions, pages 65-66, and Conferences and Treaties, pages 252-256.



- 1917**
Mar. 8—Russian Revolution begins.
Apr. 6—U. S. enters World War I.
- 1918**
Jan. 8—Wilson's 14-point address to Congress calls for self-determination, removal of economic barriers, League of Nations.
July 16—Tsar Nicholas II and family shot.
Nov. 11—World War I ends.
- 1919**
June 28—Versailles Treaty signed.
- 1920**
Jan. 10—League of Nations officially inaugurated as Versailles Treaty goes into effect.
Jan. 16—Prohibition in U. S. goes into effect.
Mar. 19—Senate finally rejects Treaty of Versailles because of League of Nations proviso.
- 1922**
Oct. 27—Mussolini marches on Rome.
- 1923**
Nov. 8-9—Munich beer hall putsch led by Hitler put down; Hitler sentenced to 5 years, serves less than 1; writes *Mein Kampf* in jail.
- 1925**
July 10-21—Scopes evolution trial held in Dayton, Tenn.
- 1927**
May 20-21—Lindbergh flies solo across Atlantic.
Aug. 23—Sacco and Vanzetti executed.
Nov.—Trotsky expelled from Communist party.
- 1929**
Oct. 24—Worst stock crash wipes out thousands of accounts.
- 1931**
Sept. 18-19—Explosion on Manchurian railway serves as pretext for Japan to begin occupation of Manchuria.
- 1932**
Jan. 7—Stimson Doctrine: U. S. will not recognize gains achieved by armed force; recognition of Manchukuo withheld.
Jan. 28—Japan begins invasion of international settlement of Shanghai.
June 7—Bonus March on Washington, D. C.
- 1933**
Jan. 30—Hitler made Chancellor of Germany by Hindenburg.
Mar. 5—Reichstag elections give Nazis and Nationalist allies 52% of vote.
Mar. 6—Roosevelt proclaims bank holiday; embargoes gold.
Mar. 12—FDR's first "Fireside Chat."
Mar. 23—Reichstag gives Hitler blanket powers for 4 years; 94 Social Democrats opposed; many Social Democrats and all Communists under arrest or in hiding.
Mar. 28—Nazis begin systematic boycott of Jewish businessmen, doctors, lawyers.
May 18—Tennessee Valley Authority (TVA) established.
June 16—National Industrial Recovery Act (NIRA) signed. Declared unconstitutional May 27, 1935.
Dec. 5—Prohibition ends in U. S.
- 1935**
Mar. 16—Hitler defies Versailles Treaty by re-establishing universal military training in Germany.
Aug. 14—Social Security Act signed; establishes old-age benefits and unemployment insurance. Upheld by Supreme Court May 24, 1937.

Aug. 20—3rd International decides Russia will side with democracies against Fascist states.

Sept. 15—Nuremberg laws deprive Jews of citizenship and bar intermarriage.

Oct. 3—Italy invades Ethiopia.

Oct. 7—League of Nations condemns Italy.

1936

Jan. 20—George V dies; Prince of Wales becomes Edward VIII.

Mar. 7—Hitler sends German troops into Rhineland, defying Versailles Treaty; denounces Locarno Pact.

July 17—Spanish civil war begins; troops led by Gen. Francisco Franco revolt in Spanish Morocco; uprisings follow all over Spain.

Aug. 19-23—Zinoviev and Kamenev executed in Russia as collaborators with Trotsky and Nazi secret police.

Oct. 1—Franco named Chief of State by rebels; establishes capital at Burgos.

Oct. 27—Rome-Berlin Axis formed.

Nov. 18—Italy and Germany recognize Franco regime in Spain.

Nov. 25—Japan signs anti-Comintern treaty with Germany; Italy adheres Nov. 6, 1937.

Dec. 1-23—Buenos Aires conference: 21 American republics pledge to consult if peace is imperiled; no nation to interfere with another's domestic affairs.

Dec. 11—Edward VIII abdicates; his brother becomes George VI.

1937

June 12—Marshal Tukhachevsky and 7 generals executed in Russia for espionage and high treason.

1938

Sept. 29-30—Britain, France, Italy, Germany in parley at Munich agree to dismemberment of Czechoslovakia; Chamberlain returns to London with "peace in our time."

1939

Mar. 15—Hitler enters Prague.

Apr. 28—Hitler rebuffs FDR's peace plea in Polish quarrel.

Aug. 24—Germany and Russia sign 10-year nonaggression pact.

Sept. 1—Germany invades Poland and annexes Danzig; Britain and France give Hitler ultimatum.

Sept. 3—Britain and France declare war.

Sept. 28—Poland partitioned by Germany and Russia.

1940

May 10—Nazis invade Netherlands, Belgium, Luxemburg.

May 10—Chamberlain resigns as Prime Minister; Churchill takes over.

May 12—Germans cross French frontier.

May 26-June 3—Dunkerque evacuation: about 385,000 out of 400,000 Allied soldiers rescued from Belgium; 1 civilian and naval craft from Britain.

June 10—Italy declares war on France and Britain; invades France.

June 14—Germans enter Paris; city undefended.

June 22—France and Germany sign armistice at Compiègne.

Nov. 14—Nazis bomb Coventry.

1941

Apr. 17—Yugoslavia surrenders; Gen. Mikhailović continues guerrilla warfare; Tito leads left-wing guerrillas.

Apr. 27—Nazi tanks enter Athens; remnants of British army quit Greece.

June 22—Hitler attacks Russia.

Aug. 14—Atlantic Charter: FDR and Churchill agree on war aims.

Dec. 7—Japan attacks Pearl Harbor, Philippines, Guam, forcing U. S. into war Dec. 8; Pacific Fleet crippled.

Dec. 8—U. S. and Britain declare war on Japan.

Dec. 11—Germany and Italy declare war on U. S.; Congress declares war on those countries.

1942

Feb. 15—British surrender Singapore.

Apr. 9—U. S. forces on Bataan surrender.

Nov. 8—U. S. and Britain land German army in French North Africa.

1943

Jan. 14-24—Casablanca Conference: Churchill and FDR agree on unconditional-surrender goal.

Feb. 1-2—German 6th Army surrenders at Stalingrad; turning point of war in Russia.

May 12—Remnants of Nazis trapped at Cape Bon, ending war in Africa.

June 10—FDR signs withholding tax.

July 25—Mussolini deposed; Badoglio is Premier.

Sept. 3—Allied troops land on Italian mainland.

Sept. 8—Italy surrenders.

Sept. 10—Nazis seize Rome.

Nov. 22-26—Cairo Conference: FDR, Churchill, Chiang-Kai-shek pledge defeat of Japan, free Korea.

Nov. 28-Dec. 1—Teheran Conference: FDR, Churchill, Stalin agree on invasion plans.

1944

- July 20—Hitler wounded in bomb plot.
- Aug. 25—Paris liberated.
- Oct. 20—American troops invade Philippines.
- Dec. 16—Germans launch counteroffensive in Belgium (Battle of Bulge).

1945

- Feb. 11—Yalta Agreement signed by FDR, Churchill and Stalin.
- Apr. 12—FDR dies; Truman is President.
- May 1—Grand Adm. Karl Doenitz takes command in Germany; death of Hitler announced.
- May 2—Berlin falls.
- May 7—Germany surrenders unconditionally (V-E Day).
- July 17-Aug. 2—Potsdam Conference: Truman, Churchill (Attlee after July 28), Stalin establish council of foreign ministers to prepare peace treaties; plan German postwar government and reparations.
- Aug. 6—A-bomb blasts Hiroshima.
- Aug. 8—Russia declares war on Japan.
- Aug. 9—Nagasaki hit by A-bomb.
- Aug. 14—Japan surrenders.
- Sept. 2—Japanese sign surrender terms aboard battleship *Missouri* (V-J Day).
- Oct. 24—U. N. officially established.
- Nov. 15—Truman, Attlee and Mackenzie King decide in Washington Conference that A-bomb secrets will not be shared until U. N. adopts control plan.
- Dec. 27—Moscow Conference, attended by Byrnes, Molotov and Bevin, makes preliminary plans for atomic-energy control, peace treaties and Korea.

1946

- Jan. 10—1st meeting of U. N. General Assembly opens in London.
- Apr. 8-18—Final Assembly session at Geneva dissolves League of Nations.
- Apr. 29—U. S. proposes treaty with Britain, Russia and France to keep Germany disarmed 25 years; Russia cool to idea.
- May 31—U. S. and Britain demand free elections in Rumania.
- Oct. 1—Verdict in Nuremberg war trial: 12 Nazi leaders (including 1 tried in absentia) sentenced to hang; 7 imprisoned; 3 acquitted.
- Oct. 15—Goering commits suicide a few hours before 10 other Nazis are executed Oct. 16.

1947

- Jan. 28—U. S. rebukes Polish Communists for rigging election.
- Feb. 10—Peace treaties for Italy, Rumania, Bulgaria, Hungary, Finland signed in Paris.

- Mar. 4—Russia rejects U. S. plan for U. N. atomic-energy control.
- Mar. 12—Truman asks Congress for \$400 million to save Greece and Turkey from Communist expansion (Truman Doctrine).
- July 12-15—16 nations meet in Paris to study Marshall Plan (Russia and 8 others stay away).
- Aug. 1—Security Council calls on Dutch and Indonesians to cease hostilities.
- Aug. 15—India freed by Britain.
- Oct. 5—Moscow announces formation of new 9-nation Communist Information Bureau (Cominform).
- Nov. 14—General Assembly votes commission to set up free government for all of Korea.

1948

- Jan. 17—U. N. Good Offices Commission effects truce in Indonesia.
- Jan. 30—Gandhi assassinated.
- Feb. 23-25—Communists seize power in Czechoslovakia.
- Apr. 21—Security Council votes plebiscite in Kashmir to decide whether province goes to India or Pakistan; both sides object.
- May 14—Nation of Israel proclaimed; British end mandate at midnight; Arab armies attack.
- June 11—U. N. appeal brings temporary truce in Palestine.
- June 18—Russia stops traffic between Berlin and Western occupation zones in Germany.
- June 21—Berlin airlift begins; ends May 12, 1949.
- June 22—Russian veto prevents Security Council from approving atomic-control plan favored by majority.
- June 28—Stalin and Tito break.
- Aug. 15—Independent Republic of Korea is proclaimed, following election supervised by U. N.
- Nov. 4—General Assembly approves U. S.-sponsored atomic control plan.
- Nov. 12—Verdict in Japanese war trial: Tojo and 6 others sentenced to hang (hanged Dec. 23); 18 imprisoned.

1949

- Jan. 7—Cease-fire in Palestine.
- Jan. 20—Truman proposes Point 4 Program to help world's backward areas.
- Feb. 8—Cardinal Mindszenty sentenced in Hungary to life imprisonment.
- Feb. 24—Israel signs armistice with Egypt.
- Apr. 4—Start of NATO; treaty signed by 12 nations.
- May 11—U. N. admits Israel.

Sept. 21—German Federal Republic (West Germany) established.

Sept. 24—Truman discloses Russia has set off atomic explosion.

1950

Jan. 13—Russia boycotts Security Council (until Aug. 1) because Red China was refused admittance to U. N.

Jan. 31—Truman orders development of hydrogen bomb.

June 25—North Koreans cross 38th parallel to invade South Korea.

June 27—Truman orders U. S. air and sea aid to South Koreans.

June 27—Security Council (at that time boycotted by Russia) calls on U. N. members to help repel North Korean aggression.

Oct. 7—U. S. 1st Cavalry makes 1st U. S. crossing of 38th parallel.

Nov. 20—U. S. 7th Division unit reaches Manchurian border.

1951

Feb. 1—General Assembly condemns (44-7) Red China as an aggressor.

Mar. 19—6 nations initial Schuman Plan to pool European coal and steel market. (In effect Feb. 10, 1953.)

Apr. 11—Truman removes MacArthur from all commands.

June 23—Russia proposes truce.

July 10—Truce talks begin in Korea.

Sept. 8—Japanese peace treaty signed in San Francisco by 49 nations.

1952

Feb. 6—George VI dies; his daughter becomes Elizabeth II.

Feb. 20-25—NATO conference approves European Army; sets goal of 50 divisions and 4,000 planes by end of 1952.

May 26—Western Allies and West Germany sign peace contract at Bonn.

1953

Mar. 5—Stalin dies.

Mar. 6—Malenkov becomes Soviet Premier; Beria is Minister of Interior; Molotov is Foreign Minister.

Apr. 10—Dag Hammarskjöld begins term as U. N. Secretary General.

June 8—Agreement on POWs reached at Panmunjom; India to head 5-nation commission for custodianship of POWs refusing repatriation.

June 17—East Berliners rise against Communist rule; quelled by tanks.

June 18-21—Pres. Rhee frees 27,000 anti-Red POWs in defiance of U. N.-Red prisoner agreement; truce talks halted June 20.

July 10—Truce talks are resumed.

July 27—Korean armistice signed.

Aug. 20—Moscow announces explosion of hydrogen bomb.

1954

Jan. 21—1st atomic-powered submarine *Nautilus*, launched at Groton, Conn.

Jan. 26—U. S. Senate ratifies (81-1) mutual security treaty with Republic of Korea.

May 7—Dienbienphu falls to Indochina Red rebels.

July 21—Indo-China truce signed at Geneva conference; Reds get half of Vietnam.

Sept. 6—Eisenhower launches world atomic pool without Russia.

Sept. 8—8-nation Southeast Asia defense treaty signed at Manila.

Oct. 23—West Germany is granted sovereignty and is admitted to NATO and Western European Union.

1955

Jan. 17—Submarine *Nautilus* goes to sea under atomic power.

Apr. 5—Churchill resigns; Eden succeeds him Apr. 6.

Apr. 12—Scientists OK Salk vaccine.

May 31—Supreme Court leaves school desegregation to regional Federal courts.

July 16—Hungary releases Cardinal Mindszenty. (See Feb. 8, 1949.)

Sept. 19—Argentina ousts Perón.

Sept. 24—Pres. Eisenhower suffers coronary thrombosis in Denver.

Sept. 27—Egypt to buy Soviet arms.

1956

Feb. 22—U. S. releases 40,000 kg. of Uranium 235 (worth \$1 million) for peaceful atomic power at home and abroad.

Mar. 9—Archbishop Makarios of Cyprus is sent into exile by Britain.

Mar. 20—Khrushchev calls Stalin murderer. (Speech made Feb. 24.)

Apr. 7—Spain proclaims Spanish Morocco independent after 44 years.

May 21—First aerial H-bomb test over Namu I., Bikini Atoll (10 million tons TNT equivalent).

June 9—Eisenhower undergoes operation to relieve blockage of small intestine due to ileitis; physicians say he will be physically fit to run for re-election.

June 12—Scientists report radiation peril to future of race.

June 28-30—Workers' uprising against Communist rule in Poznan, Poland crushed by tanks.

July 19—U. S. withdraws its offer to help Egypt build Aswan dam on Nile.

July 26—Egypt announces seizure of Suez Canal control.

Sept. 29—France and Germany agree that the Saar will return to Germany Jan. 1.

Oct. 19—Japan and Russia sign agreement ending technical state of war.

Oct. 21—Polish Communists restore Wladyslaw Gomulka to power, as party First Secretary.

Oct. 24—Soviet troops and tanks in Hungary fight anti-Communist rebellion, Imre Nagy is new premier.

Oct. 26—82 nations agree at U. N. on new International Atomic Energy Agency for peaceful use of atom. U. S. offers it 11,000 lb. of Uranium 235.

Oct. 29—Israel launches attack on Egypt's Sinai Peninsula and drives toward Suez Canal.

Oct. 31—British air attacks begin in Egypt.

Nov. 4—U. N. assembly votes to organize U. N. police force to restore peace to Egypt.

Nov. 5—British and French invade Egypt at Port Said.

Nov. 6—British, French cease fire at Port Said and halt Suez advance.

Nov. 23—Russians kidnap Hungary's Premier Imre Nagy and replace him with Janos Kadar.

Dec. 12—U. N. General Assembly condemns Russia for aggression in Hun-

gary. Vote: 55 yes, 8 no, with 13 abstaining.

Dec. 22—Anglo-French forces withdraw from Egypt.

1957

Jan. 5—Eisenhower asks special joint session of Congress for power to use military and economic aid in Middle East—Eisenhower Doctrine.

Jan. 9—Prime Minister Anthony Eden resigns after only 21 months in office; succeeded by Harold Macmillan, Chancellor of Exchequer, on Jan. 10.

Mar. 5—Eisenhower Doctrine for Middle East passes Senate, 72-19; House completes Congressional approval, 350-60, on Mar. 7.

Mar. 6—New nation, Ghana, formerly British colony in Africa known as Gold Coast, attains full independence.

June 24—Scientists tell Eisenhower we now can produce nuclear weapons 95% free of radioactivity.

Aug. 31—Federation of Malaya comes into existence as newest free nation in world.

Sept. 24—Eisenhower sends Army troops to Little Rock, Ark., to quell mob and protect school integration.

Nov. 3—Soviet Russia launches earth satellite with dog in it.

Nov. 26—Eisenhower suffers slight stroke.

(For later events, see pages 14-16.)

Addenda To World Politics Section

U.S.S.R.

When the United States and Great Britain proposed a negotiated temporary suspension of nuclear weapons testing (initially for a period of one year), the Soviet government resumed its own testing, allegedly to match the number of nuclear blasts set off by the Western powers. In a note of October 30, the Soviet government turned down the Western proposal for a one-year suspension and insisted that it would "continue to press for the immediate and universal stoppage of nuclear tests for all times."

THE MIDDLE EAST

Tunisia broke off diplomatic relations with the United Arab Republic in mid-October, and Tunisia's President, Habib

Bourguiba, denounced Gamal Abdel Nasser's schemes to dominate the Arab world "from Casablanca to Damascus."

The Soviet Union agreed to lend the United Arab Republic 400,000,000 rubles (\$100,000,000 at the official Soviet rate of exchange) to help in the construction of the Aswan Dam.

PAKISTAN

President Iskander Mirza dismissed the Cabinet and suspended Parliament in early October, decreed martial law on October 8, and on October 27 handed over all powers to General Mohammed Ayub Khan, who had just assumed office as Pakistan's eighth Prime Minister.

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WORLD POLITICS TODAY

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PEACE OR WAR IS THE PEOPLE'S BUSINESS

By DAN GOLENPAUL, Editor

Today we buy our daily newspapers and are almost afraid to look at the headlines, for they usually scream about trouble in some country of the world. Revolts and counter-revolts seem to be routine happenings, but sometimes they occur in areas where the interest of the great powers are in conflict, and then the possibility of a world war arises.

Wherever and whenever it happens it is bound to touch our shores. At the present time we are involved in treaties with approximately forty-three countries throughout the world, and we have military bases in approximately twenty-two countries. We are giving financial help through our government and through the International Bank to forty-eight countries.

Our traditional policy of neutrality and isolation is a thing of the past. We are now one of the two great powers of the world with all the responsibility that goes with power. Our defense depends upon military strength and a sound foreign policy.

How can we find the answers to the urgent world questions? To a large degree we rely upon the experts in our government. But even with experts, the people of the United States must have the knowledge and ability to evaluate the policies of our government.

Every man, woman and child will share in the consequences of a world war, and it would seem imperative that they, therefore, share in any decision which might commit us to war.

No Referendum

We are not suggesting that any question involving our foreign policy and military actions be subject to any form of referendum. However, the next war will be one of annihilation, and it seems inconceivable that we should depend on any individual to make this fatal decision for us.

Traditionally, our President is required to provide leadership in international affairs and, to a lesser or greater degree, to consult and accept the guidance of Congress. Congress, on the other hand, is sensitive to public reaction.

This communication between the people and government is a decisive factor in determining the course of action on most of the important issues before the country.

During the Quemoy and Matsu crises, the people spontaneously wrote the State Department expressing opinions—pro and con. According to the State Department, the majority of the correspondence found fault with the State Department's position by a ratio of 4-1.

This expression of the people provoked a high administration official to scold both the State Department and the press for revealing the fact that a majority of the letters were opposed to the government's policy.

It would be unfortunate, indeed, if we were persuaded to abandon what is our privilege and duty: to make our opinions known on any question to the government.

It would be better for all concerned—the people and the government—if opinions were based on information and understanding of the issues at stake. Therefore, it is tremendously important for all Americans to be informed about the world situation.

World Politics Today

In our section "World Politics Today" we are making an effort to provide our readers with the information they need to help them appraise and understand the constantly recurring crises.

This special section on "World Politics Today" brings together a distinguished group of contemporary historians.

They are picturing the world as they see it today through expert eyes. I am sure that I am not exaggerating when I say that any individual who reads these pages of a world panorama today will develop a clearer picture of the United States and other countries of the world. This was my experience when I read all the material.

I was stimulated by Henry Steele Commager's glowing description of what the United States means. Our position may be blurred and distorted by the fast-moving, critical events today, but the true meaning of our nation is expressed in the following quotations from Professor Commager's article:

"... Notwithstanding a nineteenth century tradition of 'isolationism,' the United States had never been truly isolated from the Old World, either in fact or in principle. Even when Americans fought for independence they were conscious of larger obligations to the rest of the world, and addressed their argument to 'the opinions of mankind.' In the last of his *Crisis* papers, Tom Paine congratulated the new nation that it was 'in our power to make a world happy.' Washington, in his last wartime message to the states, reminded his countrymen that 'with our fate will the destiny of unborn millions be involved...'

"... the United States has grown to be a world power without imperialism in its traditional meaning. It has engaged in four successful wars, two of them world-wide wars, without acquiring (with minor

exceptions) territory or other material rewards . . .

" . . . since World War II the American people have used their wealth and power for the rehabilitation of the economies of war-torn countries, and for stimulating the economies of backward peoples . . ."

In the article on the United Kingdom by Walter James we find a revelation of England's great capacity for realism, pride, and humility. Here are some quotations from his article:

" . . . The Suez stroke was delivered in the confidence that once it was started, America would join in. She did not, and the bitterness was great . . .

" . . . This interdependence does not come easily to the British. The role of junior partner is hard to learn. Yet the lesson is driven home constantly by the facts of Russian power . . .

" . . . Although Britain's basic interests incline her persistently towards America, it is a love-hate relationship. There is a feeling of kinship, but family relationships are notoriously difficult . . ."

The discussion of the Federal Republic of West Germany by Professor Louis Snyder poses this serious question:

" . . . Will she [West Germany] be able to abandon her past drives for world domination and merge successfully with Free Europe, or will she be tempted once again to seek political and military power by playing off West and East against each other? . . ."

When we read the article by Professor Paul Zinner on Czechoslovakia we become aware of this interesting and encouraging revelation. Referring to the June, 1958, Congress of the Communist Party of Czechoslovakia, he says:

" . . . Among shortcomings noted at the Congress was apathy by the population toward active participation in party affairs. The age and social composition of the party has been deteriorating, showing a lack of interest among the youth and the workers in identifying themselves with communism . . ."

We find another advance and promise for the association of nations without their surrendering their sovereignty in a quotation from C. Hartley Grattan's article on the Commonwealth of Nations:

" . . . The Commonwealth of Nations is, then, a peculiarly British political invention, a way of bringing into special association nations recognized in international law as independent countries . . .

" . . . The relations of the members to one another and to the outside world are determined by the members individually and insofar as they share a common attitude or policy it finds expression only through voluntary consultation and co-operation . . ."

These quotations and others used below are a very small clew to much of the

stimulating, informative material the reader will find in "World Politics Today."

World Power

Our world leadership role may have been predestined; nevertheless when it came upon us we were unprepared. We have much to learn and will need time to acquire the necessary experience.

Although our emergence as a world power may date with the turn of the century, the full impact of our responsibility did not develop until the beginning of World War II.

Our limited experience is aggravated by other factors. At this stage of world history nationalism has become a positive force. Most nations have achieved independence or are in the process of making their bid for sovereignty.

In the era of colonialism, world imperialistic powers dictated policies to their colonies which had no choice but to submit. The United States sympathy has always been with colonial nations who were striving for independence.

Dealing with scores of nations who are now independent and burning with nationalism presents difficult problems. Whether they are small or large nations they have not only found their place in the sun but they have also found an extraordinary trading position in the cold-war struggle.

India, the largest of the new independent countries, is led by Prime Minister Nehru, who has been in office since 1947. Frank Trager, who writes about India, makes this appraisal of Nehru:

" . . . It is Nehru's resolve to make India count for a great deal or not count at all. He has been the mainspring of Indian action since India's independence. That is why Nehru himself is not only Prime Minister but also Minister of External Affairs, personally in charge of the Department of Atomic Energy, and virtually his own minister for national planning as well. No middle position for India or for him; it does not attract him. He has determined that India will plan a major role not only in Asia, but also in the councils of the nations everywhere, including the United Nations . . ."

Nationalism

The upsurge of nationalism has presented Prime Minister Nehru with an excellent stage on which he can play a major role in world affairs. In these turbulent times many opportunities have developed for him to exercise leadership and influence. He has become a force in the policy of positive neutralism, winning supporters and creating competitors.

Prof. J. C. Hurewicz, in his article on the Middle East reporting about Gamal Abdel Nasser, writes as follows:

" . . . in the Conference of Asian States at Bandung where he met Prime Minister Nehru of India and Chou En-Lai of Com-

munist China . . . Nasser became an advocate of positive neutralism for Egypt and the Arab world . . . this meant the acceptance of aid from the Soviet bloc to kick over all the traces of Western interests and influence in the Middle East . . ."

It is indeed an unenviable position for any power to deal with the complexities and antagonisms of nationalist movements. The United States, which has contributed much to India's independence and the independence of other nations, is caught between crossfires.

On October 24, according to a *New York Times* story, we were attacked by Field Marshal Viscount Montgomery, who asserted that United States policy has worked to destroy the influence of Britain, France, and the Netherlands in Asia and Africa at a time when those countries might have been stabilizing influences.

While we are now attacked by Field Marshal Montgomery for encouraging independence for nations throughout the world, every colonial or former colonial nation characterizes and condemns the United States as the leader of Western imperialism.

The force of nationalism sweeping through the world presents us with a difficult and thankless position. On the other hand, nationalism gives the U.S.S.R. a rich field for propaganda.

Economic Independence

The colonial and former colonial nations fired with nationalism do not possess the immediate capacity for economic independence or military strength. All of these nations are struggling against low standards of living and lack of education. Their vulnerability make them easy prey for Soviet Russia and Communist China. This is indicated in our article on Southern Asia:

" . . . The brooding colossi of Communist China and Soviet Russia hover over the whole area . . ."

The infiltration of these nations by the usual devastating Communist techniques has strong prospects of success. The pattern, of course, may vary, but the results will probably match those that happened in Europe.

The constant Russian expansionist drive is really naked imperialism, and a perversion of their ideological Communist objective of world conversion. Speaking before the 20th Congress of the Soviet Communist Party in February, 1956, Khrushchev said: "The fact that we support peaceful existence does not mean that one can relax in the struggle against bourgeois ideology."

Speaking to Americans, Khrushchev made this clearer when he said: "We will bury you, and your grandchildren will live under communism."

The Russians are an implacable foe.

They are cunning, treacherous, and ruthless. The problem we face in dealing with them is whether we should try to emulate the tactics that totalitarian nations employ with impunity. The people of the free world find them repugnant.

To meet Russia's challenge we must develop a program and strategy that is intelligent and courageous, possessing the idealism that will be inspiring to the peoples of the world.

There does not seem to be a magic formula to resolve international conflicts. Therefore, we should perhaps resort to a simple formula that will at least fortify the country against any Communist threat.

Professor Henry Graff in his article on the making of American foreign policy discusses the relationship of the Executive and Legislative branches of the government and the public.

I think that all these groups should participate in formulating a declaration of American foreign policy that will provide the American people with a clear definition of what our foreign policy is. For the implementation of our policies we must of course depend upon the competence and the experience of our government officials. A declaration of American policies should not interfere with the constitutional and traditional performance in the conduct of foreign policy. With all due respect to our leaders, though, I don't believe that the omniscience of any individual is greater than the collective intelligence of the entire nation. I offer a simple, and what I think is a practical, plan:

When the new Congress convenes, the entire State Department, in close collaboration with the Foreign Relations Committee of the Senate and the Foreign Affairs Committee of the House, should prepare what they believe is the proper definition of our objectives for security and world peace.

When they agree upon a proposal for a declaration of American foreign policy, it should come before Congress for debate. At this stage the entire nation through its press, educators, professional people, working people, farmers, business organizations—every segment of our nation—should participate in the discussion.

When a declaration of American foreign policy is adopted, it would be the result of the participation and thinking of the entire nation. It would be something we will understand and be ready to defend with all our might, and a declaration that will inspire the entire free world.

If you think this plan has merit, write us. Perhaps your Senator and Congressman would also welcome comments. Editor.

THE UNITED STATES: 1789-1958

By

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I

WHEN, on the last day of April, 1789, Washington took the oath of office as President of the United States, the new nation was already one of the largest on earth—larger by far than Britain or France, Austria or Spain. It was made up of thirteen States, stretching along the Atlantic seaboard from Maine to Georgia, one state—Vermont—ready to come into the Union, and a vast hinterland westward to the Mississippi. This immense territory of a little less than 900,000 square miles was sparsely inhabited. The total population of the nation was just under 4,000,000; of these some 750,000 were Negro slaves, and perhaps 100,000 were Indians, roaming the wilderness west and south of the Appalachians.

Almost all of these 4,000,000 people lived on farms or in country villages. There was not a city in the country as large as Holyoke, Mass., or Canton, Ohio, or Pueblo, Colo., today; the largest city, Philadelphia, boasted less than 50,000 inhabitants. The population was mixed, but the mixture was predominantly from northern Europe—chiefly the British Isles and Germany—and, of course, from Africa, for the slave trade was not officially ended until 1808. Immigration was already changing the ingredients of the population, though far greater changes were ahead with large-scale immigration from Ireland and the Scandinavian countries; restrictions on immigration did not appear for almost a century. The chief occupation of the people was farming; a small minority engaged in fishing, whaling, sailing, commerce, and domestic manufactures. The overwhelming majority of Americans were Protestant Christians; in the cities could be found a sprinkling of Jews; and a substantial number of Catholics were concentrated in Maryland.

One hundred and seventy years later the material scene had changed dramatically and profoundly. Indeed, in all modern history, no other people had experienced such revolutionary changes in size, power, and wealth so rapidly or so easily. The United States of 1959 was a nation of close to 175 million inhabitants covering a vast area from the Atlantic to the Pacific,

from the Great Lakes to the Gulf of Mexico, and Alaska, to boot—a total area of 3,600,000 square miles. This four-fold increase in area was far outstripped by a forty-fold increase in population—an increase which was cumulative. In the single decade of the 1950's, population increased as much as during the first 250 years of history of English America, or as much as the first seventy-five years of the history of the Republic. The United States changed, too, from a nation predominantly rural to one predominantly urban: by 1959, there were four metropolitan areas with a population larger than that of the whole United States in 1789, and sixteen with a population of over one million. There were now forty-nine states instead of thirteen and—what would have been inconceivable to the Fathers—one of them—Alaska—was not even contiguous. The increase in wealth had been even more rapid than the increase in size and population, and by 1959 the United States was indubitably the wealthiest nation on the globe.

It is almost fatally easy to assume that these fantastic material changes in the United States carried with them comparable changes in character and in institutions. That would be a signal error. Not change but similarity is the most striking feature of the American political and social and even cultural scene over this period of years: it is symbolic that almost alone of modern nations the United States had never had a revolution. If we look at the statistics of the United States in 1789 and 1959 we might conclude that we are contemplating two different societies; if we look to the institutions and the culture we are forced to conclude that the society is qualitatively the same. Hector St. John de Crèvecoeur's classic description of the American, written in 1780, fits well enough the American of 1959.

Indeed we might almost say that the price of tremendous change in the material realm has been permanence and stability in the realm of institutions.

The United States in 1789

What, briefly, were the basic institutions of the United States in 1789?

First, nationalism itself. The United States was the first of the "new" nations—the first colony to detach itself from a mother-country and set up on its own, the first nation deliberately formed by its people into an independent state. Its constitution was dedicated to the creation of a "more perfect union," and the success of its experiment depended—as Washington himself pointed out—in the first instance on the union holding together—that is, on the success of the experiment of nationalism.

Second, the United States was organized on the basis of federalism: that is the distribution of power among governments on some agreed-on basis, with some system for the enforcement of the terms of the agreement. The federal system of thirteen states has grown now to a federal union of forty-nine. There have been some quantitative alterations in the power of national and state governments, but the qualitative division remains much the same. Certainly whatever the modifications of federal-state relations in the last century, no one would ever confuse the American system with, for example, the English or the French or the Spanish. Ours is still not only a federal republic, but the model for federal republics throughout the globe.

Third, the United States provided from the beginning for expansion on the principle of equality. At the very outset the new nation repudiated the ancient and traditional system of colonialism—the system adopted by and used by every other country—which held that colonies are subordinate to the Mother Country and exist for the benefit of the Mother Country. Americans, indeed, did away with the very word "colony" and substituted for it the term "territory" and "state." On the basis of the enlightened principle of equality of territory and mother country, the United States expanded westward to the Pacific with less trouble than Britain had with Ireland or Sweden with Norway in the nineteenth century. The principle of equality was applied just last year to the Territory (e.g. colony) of Alaska, and enabled the United States to absorb that large and distant area into the federal system; it will doubtless soon be applied to the even more distant Territory of Hawaii.

A fourth basis of the American system of 1789 was self-government. This was more than a principle; it was a practice as well. The doctrine that men make government, and can alter or abolish it and institute new governments, was set forth eloquently in the Declaration of Independence. It was then actualized into a workable institution in the Constitutional Convention. Beginning with Massachusetts

one state after another adopted the institution of the Constitutional Convention as the only sound method for drawing up fundamental law. From the United States this institution spread throughout the globe—to France, to the states of Latin America, to the member-states of the British Commonwealth of Nations like Canada and Australia. We still use it today whenever we want to change the Constitution of a state, but we have largely forgotten its revolutionary significance.

Self-government flourished not only in the institution of the Constitutional Convention but in the habit of participation in the daily business of government. That habit, too, was of long standing: it can be dated from the compact drawn up in the hold of the *Mayflower* and the first legislative assembly of the colony of Virginia. It is safe to say that in 1789 more Americans participated in the ordinary business of government than did any other peoples, with the possible exception of the Swiss and the Icelanders. Suffrage was, by the standards of the time, very broad, and a large proportion of white adult males could vote and could hold office. All through the nineteenth century suffrage expanded, and so did other forms of participation in politics. Eventually the rest of the world caught up with the United States and some countries even passed her in the proportion of popular participation in government.

Perhaps the most important mechanism for popular control of government and the fifth basic institution is the political party. Parties, as we know them, did not exist in 1789, but they did come into existence within five years or so. It may be said without exaggeration that Americans invented the modern political party, and that the party has assumed its most characteristic form in the United States. It is worth noting that the political party emerged in the United States in a special way: it was national, not local; it addressed itself to immediate and practical problems rather than to the championship of theories; it differed from other parties rather in method than in philosophy. It is no less important that we started out with two parties, and have kept a two-party system to the present. Indeed most of the original features of the party remain: parties are, today, practical rather than theoretical, national rather than local or class, and they differ from each other more in men and methods than in principles.

A sixth institution that flourished at the beginning of the Republic was the separation of church and state and the principle of religious freedom. We take these for granted now, but in fact they

represented something new under the sun—anyway under the western sun. The United States was the first modern nation to try the bold experiment of separating church and state and to establish complete religious freedom. These principles of separation of church and state, and of religious equality and freedom, were first written into some of the State Constitutions, then into the First Amendment to the Federal Constitution. It is in part, at least, because the United States started with freedom and voluntarism in religion that it has avoided most of the religious difficulties and quarrels that have afflicted other western nations.

Social Equality

The first of the truths which Jefferson stated to be self-evident was that all men are created equal, and a seventh institution, or practice (it is, of course both), of the new United States was equality. The "American Farmer," Crèvecoeur, noted in 1780 the prevalence of social equality among the Americans and noted, too, that one of the foundations of this equality was easy access to land. Thereafter, almost every European visitor has been struck by the same phenomenon—a social equality that had its origins in real or potential economic equality. At the beginning there were differences, to be sure, even among the whites: differences between the planter and the indentured servant, between the merchant and the fisherman, between the lawyer and the laborer. But these differences were narrow by European standards and were not transmitted from father to son—or to daughter. Legally American society was, aside from Negro slavery, classless; in fact, too, it was largely classless, for there was a larger degree of social and economic equality than was to be found elsewhere in the western world.

What explains the prevailing equality of 1789; what explains its persistence into our own time? Partly the absence of legal distinctions: no titles, no aristocracy, no provision for the inheritance of the first-born, no entail of estates to a family; partly the existence of immense untouched resources available for those who were willing to work; partly the continuous westward movement, and continuous large-scale immigration, which had the effect of breaking up and reforming the social fabric all the time; and partly, too, a philosophy which insisted that a man was to be judged not by family or wealth but by character and ability.

An eighth institution, or practice, closely connected with and in a sense basic to many of the others, was that of free public education. It is fair to say that the stand-

ards of literacy in the United States of 1789 were higher than those which obtained in any other nation at the time. Interest in education made itself felt almost from the beginning: the Boston Latin School was established in 1635, Harvard College in 1636, and the first compulsory public education law passed in 1647. To be sure, there was no such thing as universal free public education in the United States in 1789—that was still an ideal, but it *was* an ideal, and already as early as 1785 Congress had moved to set aside public land in the west to the support of public schools. All through the nineteenth and twentieth centuries the United States led the world in the proportion of the population enjoying some form of education and in the proportion of the population exposed to higher education. Today something like 3,000,000 Americans attend college, university, or professional school: the number may be compared with the 100,000 or so attending British universities.

Private Enterprise

A ninth practice which flourished in 1789 was private enterprise. The English colonies in America, in contrast to the French and the Spanish, had been founded largely by the enterprise of joint stock companies, or of churches, rather than of government, and their freedom from onerous governmental restrictions was doubtless one reason why they flourished. The new United States of 1789 had a further advantage: it started out, as it were, with a clean slate, without vested interests or commitments that might oppose insuperable obstacles to the talents and the enterprise of individuals. There was no powerful central government to establish or exercise monopoly. There was no strong army or navy to require the subordination of private interests to the supposed interests of the military, or to enjoy special privileges. There was no established church, and the whole field of religion was wide open to voluntary enterprise—which is one reason for the proliferation of denominations. There was no landed aristocracy controlling or preempting land or other natural resources; these, too, were available to those who had the enterprise and the foresight to secure them. And there was no rigid class hierarchy which circumscribed the area of activity on the part of ambitious individuals, or condemned them to particular services and duties. Finally, and most important of all, enterprise flourished in the realm of thought. The Bills of Rights, state and federal, went far to guarantee that freedom from governmental interference essential to complete freedom of expression

and of association, and to assure that the new nation would have the inestimable benefit of scrutiny, criticism, and advice, and that the economy would benefit from the same free-ranging criticism and inventiveness.

All of these institutions, in turn, made possible a tenth institution, or practice: that of voluntary association. The French observer Alexis de Tocqueville, in his magisterial study *Democracy in America*, concluded that the habit of voluntary association was one of the master keys to the American character. Whatever, he said, was customarily done by government in France or Spain, was customarily done in America by private individuals banding together into voluntary associations. The voluntary association has been, from the beginning, one of the basic American institutions, and it still is. Every political party, every church, every labor organization, every professional association, every fraternal order is a private voluntary association. In the United States men and women band together to build a hospital, found a college, carry through a reform, further business or professional activities, carry on humanitarian operations, or enjoy common interests, and American society consists of a labyrinthine network of voluntary associations.

II

These institutions and practices, then, provide the framework within which the United States experienced its immense growth since 1789. There have, to be sure, been modifications of these practices; there have been elaborations on and additions to them. But by and large they have persisted and flourished, and operate today pretty much as they did 170 years ago. Their persistence indicates that change in America has been more quantitative than qualitative, and that Americans have not departed radically from the principles they embraced and the practices and habits they adopted at the threshold of their history.

There have, however, been important developments that have conditioned and even directed the growth of the nation over the years. It will be sufficient if we mention some of the more important of these:

1. The Civil War, which tested the Union and, in the end, strengthened it; which settled forever the question of state sovereignty and of secession; which led to Constitutional changes that assured greater authority to the national government; and which provided Americans with an important body of symbols, traditions, and legends.

2. The destruction of slavery and the emancipation of the Negro. That emanci-

pation was, at first, largely physical; only over the years has it been extended to the civil, the political, and the social life of the Negro. That process is not yet complete.

3. A policy of unrestricted immigration which brought in some forty millions of peoples from every quarter of the globe. Beginning in the 1920's, to be sure, effective restrictions were established, but even these did not apply to the countries of the western hemisphere. Unrestricted immigration has been one of the most effective instruments for the rapid development of the resources of the continent, for the rapid increase in wealth, for the growth of economic and social democracy.

4. Expansion to the Pacific, and exploitation of the richest body of natural resources available to any nation up to our own time. The existence of these resources of soil, water power, forest, oil, gas, coal, iron, and precious metals has been largely responsible for American leadership in industry and in wealth.

5. In large part, as a result of the availability of natural resources and of an adequate labor force, the spectacular increase in the standard of living until it became one of the highest in the world, and the highest in any of the large and populous nations.

6. The industrial revolution and the shift from farm to factory brought with it the organization of industry into giant corporations, of finance into giant banks, and of labor into giant unions. These and other great concentrations of power represented a serious challenge to the welfare of society and of nation.

7. Concentration of control in the economy was paralleled, however, by the growth of the authority and the competence of the government in the same realm. Gradually, and since 1933 with increasing effectiveness, government extended its authority over the entire economy, regulating it in the public interest.

8. This growth of the regulatory power of government was matched by a growth of governmental authority in the realm of social services. In the second quarter of the twentieth century the concept of the welfare state, already familiar in western Europe, was gradually accepted; its acceptance was dramatized by the espousal of social security by both major parties.

The Pattern Remains

Happily these developments did not seriously disrupt the pattern of American society or economy. Only two of them were accompanied by violence—the Civil War and the destruction of slavery. All the

others were fitted into the existing framework and adapted to existing practices with relative ease. Thus, over forty million immigrants were absorbed into the social and political body and within a short time, newcomers from the most distant countries became indistinguishable from native-born Americans. Westward expansion, though it strained, did not disrupt the ties of union. It spread population over a vast territory, but so rapid was the growth of population that emigration did not weaken the eastern sections nor were successive Wests condemned too long to linger in a frontier and undeveloped state. Nor did internal mobility, on a scale not known since the barbarian invasions of the Roman Empire, disrupt American society; on the contrary, Americans adapted themselves with wonderful ease to volcanic changes, and managed to make each new section or community much like the one they had left. Rapid increase in the standard of living did threaten for a time to array class against class, but the danger was averted, class warfare in the Old World sense of the term unknown, and in the twentieth century those who profited most from the rise in wealth and in standards of living were the poorer two-thirds of the population. By mid-twentieth century the nation was in sight of the ideal of the abolition of poverty. Not only did the nation avoid class warfare; it avoided, too, that clash of giant interests which so often before had destroyed governments and disrupted societies. In course of time a working equilibrium between industry, capital, labor, and agriculture was achieved; 170 years after Madison had advanced the novel theory of strength through a balance of interests, that theory was vindicated in the American economy. Not only did government prove itself strong enough to regulate sections, classes, and interests, but undertook responsibility for providing in a positive fashion for the public welfare. This is the meaning of those developments inaugurated by Theodore Roosevelt, and which reached their logical climax under Franklin Roosevelt and Harry Truman—the growth of a welfare state which avoided both extremes of authoritarianism and operated within the framework of the democratic tradition.

III

So much for the domestic scene. Here it is no exaggeration to say that the American people were enlightened, prosperous, progressive, and peaceable, and that they had achieved as much as could reasonably be expected from any people. Would the institutions and practices which had proved effective in the domestic realm

prove equally efficacious in the international arena?

Notwithstanding a nineteenth century tradition of "isolationism," the United States had never been truly isolated from the Old World, either in fact or in principle. Even when Americans fought for independence they were conscious of larger obligations to the rest of the world, and addressed their argument to "the opinions of mankind." In the last of his *Crisis* papers, Tom Paine congratulated the new nation that it was "in our power to make a world happy." Washington, in his last wartime message to the states, reminded his countrymen that "with our fate will the destiny of unborn millions be involved," and sounded the same note in his Inaugural Address: "the preservation of the sacred fire of liberty and the destiny of the republican model of government are justly considered as deeply and finally staked on the experiment intrusted to the hands of the American people." Jefferson, Lincoln, and Wilson sounded the same note, and so did Walt Whitman and James Russell Lowell and Stephen Vincent Benét.

These early references to "mankind" were, to some extent, mere literary usages. At the time the concept of "mankind" was a limited one; it meant what we would call today the Atlantic community. As American interests expanded, and as immigrants came from new quarters of the globe, American notions of mankind, and American sense of obligation likewise expanded to take in the peoples of all continents. By the end of the nineteenth century the United States found herself a world power, with commitments in every quarter of the globe; as her power grew, so too did her commitments. How did the United States discharge the obligations that go with power?

World Power

We have had, now, some sixty years in which to learn the lessons and the responsibilities of world power. This is a long time in American history, but a short time in world history. It took Great Britain over a century to learn how to conduct herself as a world power, and no other nation ever really learned. Furthermore, the United States was called upon not only to be a world power, but to head a great coalition of nations; she was expected to play in the twentieth century the role that Britain had played in the nineteenth—but without any other nation to play the role that the United States had played!

If we look to the sixty-year record what do we find?

First, the fact itself. The United States is today one of the two or three great

world powers, its concerns extending to every country of every continent and embracing, for good measure, the Arctic and the Antarctic as well.

Second, that the United States has grown to be a world power without imperialism in its traditional meaning. It has engaged in four successful wars, two of them world-wide wars, without acquiring (with minor exceptions) territory or other material rewards.

Third, the United States has extended her trade and her business to every quarter of the globe without involving herself in economic imperialism. For a time the United States was caught up in some forms of economic imperialism—particularly in the Latin American countries and in China. But President Wilson repudiated what he called "dollar diplomacy" and that repudiation has stuck. That the United States (like Britain) is interested in maintaining unimpaired large investments in oil in the Middle East is readily acknowledged, but there is no evidence that economic considerations (as distinct from considerations of defense and security) have controlled official policy in this area. It is worth noting that the areas of largest American investment are the most independent of American authority: Canada, notably, and Western Europe.

Fourth, since World War II the American people have used their wealth and power for the rehabilitation of the economies of war-torn countries, and for stimulating the economies of backward peoples. Under the Marshall Plan (renamed the European Recovery Program), the Organization for European Economic Cooperation, and the technical assistance program, the United States has made available over sixty billion dollars of aid, economic and military, to other countries. Not unnaturally the United States has hoped that the countries and people who have received this aid would be sympathetic to American policies, and would not ally themselves with communism, but there have been no formal strings to this vast foreign aid.

Fifth, American influence has spread throughout the globe not so much through formal economic aid, and even less through political pressures or cultural propaganda, but by force of example. What we are witnessing is not an imposed but a voluntary Americanization of much of the rest of the world. American science and technology, the American habit of making labor saving machinery—washing machines, electrical refrigerators, vacuum cleaners, automobiles, and so forth—available to all; American expectation of a high standard of living for the common man; the American habit of equality between

the sexes; American motion pictures, recorded music, magazines, and books—all of these have spread across the earth by their own force. This spread of American machines, American gadgets, American food and drink habits, and American popular culture has aroused the bitterest kind of hostility among privileged groups abroad, but proceeds apace notwithstanding this hostility and promises to increase rather than to decrease.

Sixth, the United States has been required by two world wars, and by the demands of leadership of the free nations against communism, to become a major military power. The principle that the civil is superior to the military has persisted, but it is no longer possible to draw meaningful lines between the two. It would be a gross exaggeration to say that the United States has become militarized in the sense that Germany and Japan became militarized during the first half of the twentieth century, but it is no exaggeration to say that military considerations have come to permeate every aspect of American politics, economy, and society. We are not a militarized nation, but we are a military nation.

Seventh, the United States is not only head of a coalition of free nations, but a member of a group of international organizations, and is bound therefore to consult with and cooperate with the members of these other organizations. Though the United States rejected the League of Nations in 1919-20, it took the lead in creating the United Nations, as it subsequently took the lead in the creation of the North Atlantic Treaty Organization (NATO) and other international groupings and alliances. It is no longer a completely free agent in the conduct of foreign affairs.

IV

What, finally, of the prospects for the future—not the distant future (for we are by no means sure that there will be one) but the immediate future?

The problems of the immediate future differ profoundly from those of the historic past. The differences are qualitative, rather than quantitative, and this suggests that we may be at one of the major watershed of our history. It remains to be seen whether our experience and training has fitted us to solve them.

Here are some of the major problems that loom up on the horizon:

First, science and technology have brought about an unprecedented increase in population throughout the globe. The population explosion is far more serious in China and India, or in Puerto Rico and Cuba at our doorstep, than in the United

States, but it is serious here at home. Will the United States develop the resources to maintain a high standard of living for a population that may double within the lifetime of children now alive! And even if the United States can take care of such an increase in population at home, can she survive in a world where population increases faster than available resources?

Second, the technological revolution has brought with it the problem of increased longevity and increased leisure. In the past, our country has been put to it to find enough workers to do the tasks that clamored to be done; the task for the future will be rather to equip a large part of our population to use leisure time beneficially. One example of this problem dramatizes its character: at present some twenty-five million persons are involved in some form of adult education; in all probability this number will double in the next generation.

A third problem is closely connected with the first: the preservation of existing and the discovery or creation of new national resources. In the past Americans have directed their energies to exploiting their fabulously rich resources; in the future they will have to conserve them or find substitutes for them. We are running out of soil, water, forests, oil, and other resources. There are substitutes for some

of them—oil for example—but are there practicable substitutes for water? Or for soil?

Fourth, the relation of the United States to new world powers. In the nineteenth century the United States could address herself pretty much to her own concerns; in the first half of the twentieth to the affairs of the Western Hemisphere and of Europe. The great powers of the future will in all probability be China and India, and along with them an Arab confederacy. These, certainly, will challenge the position now occupied by the United States, Britain, and Russia. Americans must learn to live in a world where these new and unfamiliar nations are equal or senior partners.

Fifth, in the past two centuries—indeed ever since Franklin's experiments with the lightning rod—Americans have applied the findings of science and technology largely for benevolent purposes—to improve standards of living, to combat poverty, to wipe out disease, and so forth. Now we are confronted with the overwhelming problem of atomic power. Probably no other technological device in history has had so great a potential either for good or for evil. The problem of the ultimate use of atomic power is not one which Americans can solve by themselves, but it is one in the solution of which the American people will play a decisive role.

THE MAKING OF AMERICAN FOREIGN POLICY, 1789–1958

By

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THE UNITED STATES has always been deeply involved in the problems of the rest of the world. But only in times of crisis has the interest of the American people and their leaders in foreign policy been equal to the country's needs. It seems hard to believe that in his first inaugural address, Woodrow Wilson did not feel obliged to refer to international questions at all, and that as late as 1936, Franklin D. Roosevelt could campaign successfully for reelection without mentioning them more than once—and then only casually. As a nation we were unprepared for the burdens of world leadership that fell upon us in the last generation. But ready or not, we had no choice save to bear them. Finding the right policies has become as important

and as difficult a challenge to our democracy as any that we have faced in the past.

Under the hammer blows of world-shaking events in the twentieth century, what happened to the traditional policies of the United States? First of all, we are now committed to "permanent alliances." These provide us with the military bases and the manpower we would need to supplement our own bases and manpower in the event of a war. Our alliance system is vast and complex. In 1949, we took the lead in creating the North Atlantic Treaty Organization (NATO); in 1954, we were instrumental in bringing into being the South East Asia Treaty Organization (SEATO); in 1955, we helped to establish the Baghdad Pact. Furthermore, in 1948 we aided in

the establishment at Bogotá, Colombia, of the Organization of American States. The capstone of the structure is the United Nations. It became the agency through which we conducted the "police action" in 1950 to 1953 that forestalled aggression in Korea.

The stakes for which we vie with the Soviets are enormous. They include not only the great markets of Europe, Africa, and Asia, but also the principles on which we like to believe permanent world order must rest. Secretary of State Cordell Hull once defined our purposes this way: "We want to live in a world which is at peace; in which the forces of militarism, of territorial aggression, and of international anarchy in general will become utterly odious, revolting, and intolerable to the conscience of mankind. . . ."

No President, be he Democrat or Republican, is likely to change these facts. Our responses to the Soviets have become astonishingly uniform.

In 1947, Truman enunciated what quickly became the "Truman Doctrine." He explained it: "I believe that it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures. . . ." Ten years later, in the face of new threats of subversion—this time in the Middle East—the administration in power responded with the so-called "Eisenhower Doctrine." In providing promises of economic assistance and armed aid, it restated the purport of the Truman Doctrine. We may expect to restate it again to apply to other parts of the world in the years to come.

In a world in which the struggle is for men's minds and allegiances rather than for their territory, non-interference in the domestic affairs of other countries is no longer a tenable policy. It did not seem wrong, for instance, in 1953, when Secretary Dulles openly expressed his hope that Konrad Adenauer would win a sweeping victory in the parliamentary elections for the German Federal Republic. This was a form of interference that would not have been attempted a generation ago.

Neutrality Has Gone

Our long dependence on neutrality in Europe's wars is a thing of the past. There is no such thing as neutrality for a great power. By withholding its strength from a conflict it just as surely affects the outcome as if it participates actively. Its interest lies in taking positive steps as soon as possible in behalf of the side it hopes will win.

The old principles of foreign policy having passed into limbo, what are the new

ones? The first is that the physical defense of the United States must be the prime concern of the policy makers. The "ram-parts we watch" may be thousands of miles from our shores, in the frozen north or in the steaming tropics, or they may be just across the border. Maintaining them inviolate is the business of joint military and diplomatic activity.

The second is that the United States must play an active role in the great ideological struggle in the world. This role now takes the form of financial aid through the Mutual Security Program, and psychological assistance through the Voice of America and other propaganda organizations. The United States must win the sympathy and friendship of the so-called uncommitted peoples. These are the peoples who, having broken away from dying European empires, are newly arrived at independence.

The Perspective of the Past

To form an idea of how far we have changed from our original concept of our role in the world, it is useful to go back into history.

At the beginning of our republic, the principles that guided us in our foreign relations were clear and generally accepted as representing the prevailing opinion. The early makers of our foreign policy recognized that the United States stood to gain most if it could avoid entangling itself needlessly in disputes and issues abroad, especially those in Europe. The finest statement of the foreign policy of the Revolutionary generation is contained in George Washington's Farewell Address of 1796. Washington's words were clear: "The great rule of conduct for us in regard to foreign nations is in extending our commercial relations, to have with them as little political connection as possible." Yet Washington advised his countrymen only against *permanent* alliances. "We may," he wrote, "safely trust to temporary alliances for extraordinary emergencies."

To Washington's "great rule of conduct" was added a second principle: the United States must refrain from interfering in the domestic affairs of other countries. This republic, born in revolution, felt a kinship with other republics and a strong sympathy for revolution—wherever it might help to create a republic. Nevertheless, we would take no *official* stand. The first Secretary of State formulated this policy. Said Thomas Jefferson: "It accords with our principles to acknowledge any government to be rightful which is formed by the will of the nation, substantially declared." In a word, we would recognize in our international dealings, governments which were strong enough to maintain

themselves, be they monarchies or republics.

A third principle was that whenever Europe went to war it was incumbent upon the United States to maintain a position of neutrality, and thus to avoid giving aid and comfort to either side. Until 1914 this principle served us well, even though it did not prevent our involvement in the War of 1812.

The Monroe Doctrine

Our relations with England were of a special order. Despite the War of 1812 with the Mother Country, British interests and American interests tended more and more to coincide with one another rather than conflict. Although it long was customary for politicians to strike an anti-British pose, in practice a strong basis for international friendship existed. This is illustrated in the formulation of what we know as the Monroe Doctrine.

The story of the Doctrine can be best understood against a background of far-reaching developments in Europe. The monarchs of the Continent, after the defeat of Napoleon in 1814-1815, had formed themselves into an alliance that led many to expect Spain to seek to recover her colonies in the New World, which had broken free. In August, 1823, the British Foreign Minister invited the American Minister to England to have the United States join Britain in a declaration to European countries warning them to keep hands off the Americas.

The United States, firmly guided by its brilliant Secretary of State, John Quincy Adams, rejected this unusual offer from a great power to a tiny one. Adams decided that we must go it alone in warning the crowned heads of Europe. Adams' conclusions found their way into President James Monroe's annual message to Congress of December 2, 1823, which is the source of the Doctrine that bears his name.

Shielded by the principles of Washington and Monroe, Americans turned to the formidable tasks they faced on this continent. They expanded their borders by expelling the European nations one by one: France's turn was first (by the purchase of Louisiana in 1803), then Spain's (by the cession of East Florida in 1819), and then Russia's (by the purchase of Alaska in 1867). The War with Mexico in 1846-1847 brought us California and the Southwest.

In the years that followed the conclusion of the Civil War, the principles we had held since Washington's day continued to be our guide. There was a growing body of Americans who believed that the United States could profit from owning colonies,

but Congress remained opposed to building an empire. Indeed, an arrangement in 1867 to annex the Danish West Indies was turned down by the Senate—even though the King of Denmark had already bade his subjects a fond farewell! And in 1869 a treaty providing for the annexation of Santo Domingo met the implacable opposition of the Senate, which rejected it.

Rise of Pan Americanism

Side by side with this attitude of anti-imperialism, there developed an interest in Pan Americanism. The controlling impulse of this movement to foster better relations among the Americas was commercial, although from the outset it was clearly recognized that the construction of machinery to settle disputes peacefully would be a powerful boon to good will in the Western Hemisphere.

Pan Americanism gained ground slowly, for by the 1890's the desire to own colonies was winning out in the United States, and the "Norte Americanos" aroused deep suspicion among their neighbors to the south. A change had come over millions in the United States which portended a significant change in foreign policy; the spirit of jingoism was about to triumph, bringing with it an interest in the excitement and glory of war and conquest.

This air of belligerence was owing in part to an insistent attempt by the rising generation of national leaders to develop for the country new and more adventurous ideals. In part it resulted from a desire to bring the blessings of our own people to others less fortunate. In part it arose from the belief that Americans had an unmistakable duty to take colonies in order to provide naval bases needed to protect far-flung interests.

The consequence of these stirrings was war against Spain in 1898. A series of quick but by no means easy victories caused Spain to sue for peace before the summer was over. The treaty of peace gave us the Philippine Islands, Guam, and Puerto Rico.

This treaty triggered the first great debate over foreign policy in our history—revolving on the question of whether or not we should acquire colonies. The answer we accepted was that we could serve the former Spanish colonials best by placing them under our political tutelage.

Nevertheless, the urge to acquire colonies died out shortly, and over a period of years we gradually made provision either to free our territorial possessions—as when we released the Philippines in 1946, or to give them greater autonomy—as when we created the Commonwealth

of Puerto Rico in 1952, or to bring them into the Union—as in the case of Alaska in 1958.

The ownership of colonies left its mark on our foreign policy. Soon after the Spanish-American War, we acquired the right to build the Panama Canal. This led us to take special steps to guarantee the relative stability of countries in the vicinity of the Canal Zone. The fear persisted that a failure by one of the Caribbean nations to meet its international obligations might invite foreign intervention in order to compel compliance. Our policy became one of saying to European nations that they might not chastise an American nation but that, if necessary, the United States would undertake to do it for them. This policy received formal expression in 1904 in the so-called Roosevelt Corollary to the Monroe Doctrine. In thus claiming for ourselves an "international police power" we aroused fierce hostility in Latin America. Suspicions of United States motives began to abate slowly after Woodrow Wilson promised in 1913: "The United States will never again seek one additional foot of territory by conquest."

Nevertheless, misgivings about our intentions persisted. Even the "good neighbor policy" of Franklin D. Roosevelt did not put them to rest. Today, these suspicions have been replaced by a growing belief among Latin Americans that the United States neglects their economic and social problems while concentrating on those of Europe, the Middle East, and Asia.

The Open Door in China

After we acquired the Philippines, we formalized our policy in the Orient, just as we had done in the Caribbean. But our Far Eastern policy has carried less conviction than our Latin American policy because we have wavered in defending it. It has been based on the principle that access to the China market—the value of which we have always exaggerated—must be equal for all countries. We have also declared ourselves as standing four-square against the break-up of China's territorial unity.

Although we paid lip-service to the Open Door policy in China, as the years passed we accepted the favored position that Japan was assuming for herself in Korea and in Manchuria—two regions that belonged to China. We were consistently unwilling to place the force of arms behind the policy we avowed. In 1916, as the United States found itself fettered by the war in Europe, it stood idly by while Japan carried on imperialism against China. Japan's expansionist activities continued in the 1920's and '30's.

Our insistence on the Open Door was a contributing factor in leading us to war in 1941; but when the war ended, the Door had been firmly shut despite our sacrifices in blood and treasure. Although our economic health does not depend on the China trade—and never has—our exclusion from China cuts us more deeply than any other disappointment in international relations. Our pique is based on sentiment rather than interest. Only a Pollyanna can believe that we shall see the Open Door in our time.

Still another effect of becoming a colony-owning nation in 1898 was our involvement in international politics on a larger scale than ever before. We were now caught up in currents we could not control and for which George Washington's "great rule of conduct" would no longer serve. In a world bent on having a war, the United States stood perilously alone. When hostilities broke out in Europe in 1914, few believed that the United States would have to be involved in the actual fighting. To many it seemed like part of the age-old struggle for power between rival armed camps. But a few perceived that we could not be indifferent to its outcome, and that a victory for Germany would establish for the first time in modern history a hostile nation supreme both on land and on sea. This would inevitably bring the Germans into British possessions in the New World and thus threaten the vital interests of the United States. Moreover, Wilson soon realized that it was one thing to proclaim *neutrality* and quite another to defend the *rights of neutrals* in a world at war. German submarine warfare brought us at last into the struggle. Outraged at Germany's international behavior, Wilson asserted: "The world must be made safe for democracy."

But Wilson soon had a more important war aim: a league of nations "for the purpose of affording mutual guarantees of political independence and territorial integrity to great and small states alike." Although the Covenant of the League of Nations was written into the treaty that ended the war—the Treaty of Versailles—the Senate refused to ratify it without reservations which Wilson considered to be too crippling to accept. Thus, with world-wide commitments and interests, and in spite of the lesson of the war just ended, the United States refused to adopt a policy which would connect it formally with the League of Nations.

Substitutes for membership in the League were devised—and they proved to be inadequate. To defend our interests in the Orient, we fostered a series of treaties at the Washington Arms Conference in 1921-1922; to defend the peace in Europe, we negotiated with France the Pact of

Paris of 1928 (later accepted by many other nations), which outlawed war "as an instrument of national policy."

Although there were high hopes for both of these arrangements, neither could be adequate in the face of a determined aggressor. This was clearly shown after 1931 when Japan first, and then Italy and Germany, callously disregarded their international obligations and indulged in unrestrained aggression. But it was not until the spring of 1940 when, one after another, the countries of western Europe were being trampled, that the great majority of Americans came to recognize the extent to which the United States was imperilled by attempting to stand alone in the world.

Puzzled Americans

Many Americans today are confused about the policies we pursue abroad. On the one hand there is solemn talk of bipartisanship in foreign policy, and on the other there is public debate between the major parties and, sometimes, within the parties, over whether or not we are on the right track.

The question of who should make foreign policy is an old one—as old as the Constitution. It arose for the first time in the Constitutional Convention. Pierce Butler of South Carolina insisted among his fellow-delegates that the power to declare war should reside in the President. The President, Butler said, could be expected to possess the qualities of mind required to reach correct decisions, and could be counted on never to make war unless public sentiment supported it. Butler's colleague, Elbridge Gerry of Massachusetts, was appalled. Gerry asserted that he had "never expected to hear in a republic, a motion to empower the executive alone to declare war."

The Constitution itself finally provided for Congress to have the exclusive right to declare war. But as time passed, the power over peace and war—like the power over all foreign policy-making—came to be in the province of the President. It had early become apparent that while the legislative branch may be presumed to represent the people more directly than the President does, its proceedings are slow, and it is not continuously in session. Of course, Congress could today be assembled in less than a week, but unhappily the developments in military technology have made even "less than a week" an intolerably long time. So, just as the case has been since the start of our history, the executive branch dominates the formulation of our foreign policies.

In practice, therefore, the President may involve us in obligations—even war—re-

gardless of the wishes of Congress. There are numerous illustrations: James K. Polk created the situation that led to the conflict with Mexico in 1846; Wilson sent General Pershing against Pancho Villa in 1916 under circumstances that could easily have led to more widespread fighting; and Harry S. Truman, in ordering troops to Korea in 1950, presented Congress with a *fait accompli*.

Of course, Congress may withhold funds for the conduct of hostilities it does not approve of. But this is usually impractical: once war has broken out and the enemy is engaged in battle, it would be unthinkable. Presidents have almost invariably avoided outright defiance of Congress on questions of foreign policy—although there was the occasion in 1908 when Theodore Roosevelt sent the fleet around the world against the wishes of leaders on Capitol Hill. He asserted simply that as commander-in-chief he could order the fleet to the Pacific and that if Congress did not appropriate the necessary funds to bring it back, there it would remain. Congress complied.

In exercising their enormous power in the field of foreign affairs, the Presidents have relied heavily upon their secretaries of state. The secretaries, therefore, long worked under the mantle of Presidential protection, which gave them a prestige not enjoyed by any other member of the cabinet. This prestige was enhanced by other factors: first, the Secretary of State is the senior member of the Cabinet; second, for a considerable part of our history, the Secretary of State stood next in line of succession to the President and the Vice President; third, the Secretary was the single figure in the executive branch (with some notable exceptions) who seemed to stand above the fray of domestic politics; fourth, working often in secrecy, the Secretary until recently was usually spared the brickbats of his fellow-citizens.

Today, the amount of specialized knowledge required for the conduct of foreign affairs makes it inevitable that the part for the Secretary of State to play will grow. While the president must continue to be the voice for the country's foreign policy, the Secretary will be his lightning rod, drawing the fire of critics away from the chief. This was Dean Acheson's role as Truman's Secretary; it has been John Foster Dulles' under Dwight D. Eisenhower; it will be the role our next Secretary of State will have, too—regardless of his party.

Although the Secretaries have now become the experts, the place of Congress in making policy cannot be discounted. Consistent leadership in policy-making can rarely come from Congress, because Con-

gress is too large and too diverse. But there are times when it can declare itself boldly: in 1898 Congress was well in advance of the President in demanding a war policy; in 1948 the Vandenberg Resolution put the Senate on record ahead of the executive in favor of taking the steps that led to the North Atlantic Treaty the following year; in 1918-1919 a group of determined Senators, led by Henry Cabot Lodge of Massachusetts and William E. Borah of Idaho, blocked the ratification of the Treaty of Versailles which would have made us members of the League of Nations.

The public itself cannot participate directly in the shaping of foreign policy: the time factor is often critical, and sometimes expert knowledge is required that cannot be disseminated for reasons of national security. The negotiations conducted by the Department of State with the Vichy French regime during the Second World War provide an excellent illustration. There was widespread public disapproval of the relationship the United States maintained with the government of France, which many considered to be a puppet of the Nazis; nevertheless, the negotiations we conducted made it possible for Anglo-American troops to land unopposed in North Africa. The irritating secrecy was

thus later justified by the military results attained.

It appears unlikely that we shall ever discover an ideal arrangement for using the special contributions that the executive, the legislature, and the public can make in formulating foreign policy. But the subject has particular importance at present when there is unusual uncertainty—and hence dispute—over policy.

Obviously our security depends upon military strength able to match the military strength of any nation or group of nations which may challenge us. The military strength of the free world must be supplemented by non-military methods. We require once again a well-defined foreign policy. We shall need better-informed ambassadors abroad than in the past; we shall need representatives abroad who can deal easily in the language of the peoples into whose countries they come; we shall need higher salaries for our foreign service officers in order to attract to the foreign field men and women of high talent. Above all, we shall need a better-educated citizenry able to bear courageously and calmly the agonies and irritations of "cold war," and who have confidence not only in democratic institutions, but also in themselves to meet the needs and demands of foreign policy.

U.S.S.R.

By

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THE emergence of Russia as one of the two super-powers has been one of the outstanding developments of world affairs. In terms of its background, the growth of Russia's power and influence has surprised many Western observers. Some analysts still speak of it as a fear-ridden, ill-managed hotbed of discontent. Others describe it as a successful and efficient machine. It is in fact a country of contradictions, with strengths as well as weaknesses, some of which are difficult to detect and estimate because of restrictions on the flow of information imposed by the Soviet regime.

What we call Russia is officially the Soviet Union, or, more correctly, the Union of Soviet Socialist Republics. Technically it has a federal structure (the Union consisting of fifteen Republics) and elective organs of government. In reality, it is a

totalitarian system, ruled by a combination of persuasion and compulsion through a complex system of formal and informal controls. The gap between constitutional fiction and political fact is important to bear in mind in examining the Soviet system.

The leaders—and their followers—profess to be dedicated to working for a system that will bring abundance and happiness for all useful members of society; they claim to represent the popular will. Yet the essence of the system, as evolved over the past forty years, has been ruthless and arbitrary rule. From the top of a political pyramid, a small group—usually a single dictator—has controlled not only the conventional arms of government and the entire economy, not only the army, police, churches, and labor unions, but also all forms of cultural life, education,

and often even family life and leisure time. The key feature of the Soviet system has been complete dictation from above and suppression of all expression of spontaneity from below.

To say that the regime is arbitrary in disregarding the popular will is not to suggest that it is the product of wiles and impulses alone (though under Stalin and perhaps Khrushchev, too, these may play some part in determining policy). The regime is committed to a very specific ideology, which both justifies and guides its actions. At the same time, there are forces (both inside and outside the country) which circumscribe what the system can do. Some of these are immutable historical and geographic realities; others, such as popular will and foreign attitudes, the Soviet leadership can and does try to mold and alter.

The Tsarist Heritage

Over the centuries, Russia has expanded through conquest, pioneering, negotiation, and inheritance from a small principality centered around Moscow, into the largest contiguous land mass under a single government. By the time the United States had grown to its present size, and the European powers had carved up most of Asia and Africa, the Russian empire had advanced across Siberia, conquered a wide coastline on the Pacific, and annexed the Caucasus and Central Asia as far south as the borders of Iran, Afghanistan, and China.

Here was a multinational empire, with some peoples annexed voluntarily and others absorbed by force. The so-called Great Russians represent a little more than half the total population; the other Slavic nationalities—Ukrainians and Byelo-Russians [White Russians]—are next in number, though until the last century they were without a pronounced sense of national consciousness. More than 150 other nationalities populate the rest of the country.

Until the twentieth century, it was a country rich in manpower and resources but backward in many respects. A thin layer of more or less cultured landowners and gentry, and an "intelligentsia" including outstanding writers and artists (like Tolstoy, Dostoyevsky, and Tschalkowsky) generally stood apart from the mass of the people, most of whom were peasants who until 1861 had been illiterate serfs and were leading a bitter struggle for survival. This gap in wealth and mutual understanding was equaled only by the gap between the potential of Russia's resources and her failure to develop them. In some measure, these failings were due to the

stagnant system of Tsarist autocracy, which left a legacy of strong central power, the right and duty of the state to guide the destinies of its subjects, and the absence of free political life.

Toward the end of the nineteenth century, economic development and industrialization were stepped up; labor as a social class and as a movement began to grow; the peasants increasingly pressed for the improvement of their lot; "land and freedom" became a widespread cry. Social changes, combined with intellectual ferment, gave rise to political demands. But the rigidity of Tsarist rule doomed reform movements to failure, and invited the other extreme as the most likely alternative to Tsarism: revolution and terror. An abortive revolution in 1905 succeeded in forcing the Tsar to grant a limited constitutionalism. In the following years, however, these gains were whittled down. No thorough-going reform took place, and the First World War saw Russia in the throes of severe dislocations, heavy losses, and economic distress. War-weariness and the incompetence and isolation of the rulers produced a crisis of confidence, which in March, 1917, led to the abdication of Nicholas II. The end of the Romanov dynasty ushered in a Provisional Government representing various parties, largely democratic and moderate.

The new regime, striving to be responsive to conflicting popular demands in the midst of an onerous war, was faced with the emergence of the Bolshevik Party—which in the spring of 1917 had fewer than 25,000 members and whose leaders were almost all in exile or abroad. With simple slogans promising all things to all men—"land, peace, bread"—and under the determined leadership of Vladimir Lenin, it became the major challenge to the Provisional Government. After several crises, power (as Lenin put it) "lay in the streets," and the Bolsheviks through a coup on November 7, 1917, ousted the Provisional Government and proclaimed themselves masters of Russia. The democratically-elected Constituent Assembly, with a clear anti-Communist majority, was forcibly dispersed in January, 1918. The "soviets"—originally councils of workers, peasants, and soldiers, which had been non-Communist at the outset of the Revolution—had become largely Bolshevik-controlled; they gave their name to the new, "Soviet" regime.

Communist Ideology

"Bolsheviks" (Majority Men) is the name Lenin gave to his faction of the Russian Social-Democratic movement when in 1903 they prevailed within the party over the

"Mensheviks" (Minority Men) in a fight over the nature and organization of the party. Lenin, then and later, stood for a strongly disciplined, army-like, elite party of professional revolutionaries. In this, as in other respects, he had pushed to an extreme some of the notions formulated by Karl Marx and Friedrich Engels in the years after 1848.

Bolshevism (or communism) is the combination of an irrational faith in a historical mission with a rational attempt at social engineering: the transformation of society—and man—in accordance with a preconceived plan and understanding of the universe. With only minor alterations, the present Soviet leadership remains wedded to "Marxism-Leninism," as it is called; and even though the tenets are at times neglected or twisted, the impact of ideology on the Kremlin's view of the world—and its actions—is far greater than Americans are accustomed to believe.

The basis of Marxism is *dialectical materialism*. It postulates that the progress of mankind takes place through a chain of conflicts; in each of its links the struggle between two opposites (new and old, or good and bad, or rich and poor) eventually leads to a new synthesis, which in turn generates its opposite, and so forth. It assumes that material factors are the determinants of social relations; and that the mode of production, or the type of economic system, at any stage is the decisive "base," which determines the nature of the "superstructure" of morals, values, and culture. This inevitable process, Marxists hold, explains the progression of mankind from one stage to the next higher—from primitive to feudal society, from feudalism to capitalism, and on to communism. But while in each hitherto-known system the conflict was expressed in terms of economic classes (the exploiters and the exploited), after overthrowing capitalism and the capitalists, labor will bring an end to the dialectical process: class struggle will end, and a classless society of equals will emerge. The ideology thus provides an analysis of history as well as a road map to communism.

For Lenin, political and civil rights were part of the transient "superstructure" of capitalist society, not self-evident or natural rights; morality, humanitarianism, and laws were all transitory phenomena of the present but not necessarily of the future social order. Lenin focused stubbornly on the "dictatorship of the proletariat" as the necessary first phase after the seizure of power, and on the Communist Party as the self-appointed "vanguard" of the toiling masses, whose interests it represented regardless of whether these masses had reached sufficient political maturity and sagacity to agree or not.

Thus the vision the Communists have held out—and a powerful vision it has been—is that of a classless society, in which "exploitation of man by man" is abolished, and the state (defined as an instrument of oppression wielded by the ruling class) must wither away. Society, having abolished private property by nationalizing it, regulates production and distribution by the formula, "From each according to his ability, to each according to his needs." It will be well to ask to what extent, if at all, Soviet practice has led to an approximation of these objectives.

The tenacity and the content of the doctrine make for a unique continuity of goals, along with a maximum of flexibility in the means of attaining them. The end explicitly justifies the means. Even in Khrushchev's "public-relations"-conscious reformulations, the inevitable victory of communism throughout the world remains; and while there may be instances (Moscow now maintains) where communism can come to power by constitutional means, the use of violence remains condoned wherever it furthers the cause.

Lenin, Stalin, Khrushchev

Leon Trotsky, Joseph Stalin's major rival for power after Lenin's death in 1924, once predicted that the Communist Party would usurp the place of the masses; that its leadership would displace the rank and file; and that a dictator would finally discard the party leadership as well. The Soviet experience has nicely illustrated the dominant role of the party as well as the emergence of one-man rule. Paradoxically, as the caliber of the leader (Lenin, Stalin and, after some struggle, Khrushchev) has successively declined, the power of the Soviet state has grown.

After a bitter struggle for survival against domestic and foreign foes, Lenin in 1921 called a temporary halt to the forced march toward communism. With political power consolidated within the new borders of Soviet Russia, "War Communism" was replaced by the "New Economic Policy" (N.E.P.), meant to be a prolonged breathing spell to permit economic recovery and reconstruction after years of crisis and famine. Yet, while the spirit of compulsive breakneck transformation relaxed, the one-party system was never permitted to weaken.

In the struggle for the mantle of Lenin, who died January 21, 1924, Stalin skillfully outmaneuvered both the moderate ("right") and the purist ("left") wings of the party. His victory was achieved largely through shifting, unprincipled alliances, first with one group, then with another,

while maintaining his hold over the organizational weapon: the party machine. Trotsky and other opposition leaders were exiled in 1927.

By 1929, Stalin's dictatorial control had been secured. At the same time, the N.E.P. came to an end, and a new militancy was injected in industry, agriculture, and foreign policy. The following decade, down to the outbreak of World War II, witnessed the blossoming of totalitarianism, with party controls extended over economy, bureaucracy, army, police, and intellectual life. All dissenters were branded as deviationists or "enemies of the people." This process culminated in an orgy of treason trials and the so-called Great Purges of 1936-38, which the Communists themselves now recognize to have cost the lives of many thousands of innocents—including the majority of "old Bolshevik" and Red Army leaders, along with numerous non-Communists.

At the same time, a "second revolution" was begun. It was marked by the introduction of the Five-Year Plans, forced industrialization, and collectivization of agriculture, all of which required tremendous exertion, force, and casualties. By 1936 Moscow could claim that all hostile classes had been liquidated and that the Soviet Union had achieved "socialism." (In communist parlance, "socialism" is but the "lower," imperfect stage on the road to the "higher" communist paradise.)

By 1939 Soviet Russia appeared to the world as an inscrutable, industrializing, arming, "maturing" state, which had suffered inestimable losses and which had also retreated from some of the naive expectations of its early years. Clearly, the Communist millennium was not around the corner. Neither state and law nor even crime were about to wither, as had been hoped. The original stress on equality in wages and opportunity, lack of discipline in education, scorn on family life were all abandoned as all resources were being harnessed for a centrally-directed, strenuous effort to build up the state and the economy.

World War II interrupted and rechanneled these drives into a gigantic exertion: first, to stem the German onslaught (June, 1941-December, 1942) and then, to strike back and pursue the invading troops to Berlin (January, 1943-May, 1945). In the course of the war the Soviet leadership considerably relaxed its stress on communism, in an effort to create a sense of broader national unity. But the loosening (like so many before and after) proved to be temporary. Soon after the war it yielded to a return to a "tough" policy. Its expression in foreign policy was the "cold war." In domestic life, it was marked

by the renewed insistence on Communist purity, anti-Western intolerance, dictation in arts and sciences, and a new round of greater conformity, tighter work discipline, and higher performance in economic life as well.

Beneath the surface, these years (1947-53) witnessed a renewal of bitter struggles within the Soviet leadership; a new peak of totalitarian rigidity and extremism; and the ludicrous adulation of Stalin himself. A new crisis and a new round of purges seemed to be imminent on the eve of Stalin's death (March 5, 1953); urgent problems remained unattended; and even his highest disciples feared new orgies of "unwarranted" terror.

U.S.S.R. in Transition

Since Stalin's death, the Soviet Union has been in a process of readjustment. The rulers and the ruled seem to have agreed on the need for some, and in many ways important, changes. What these were and who was to carry them out remained in dispute. The past five years have been marked by a contest for power at the top, and a number of reversals of policy at home and abroad. Most important, perhaps, have been (1) the maintenance of the basic communist objectives and outlook of the leadership; (2) the attempt to make government and economy more efficient and "rational"; and (3) the restriction of the machinery and atmosphere of terror—a process which has led to the emergence, perhaps for the first time since 1920, of a meaningful "public opinion."

Among the benchmarks of the post-Stalin era have been the successive elimination of his "heirs"—Beria, Molotov, Kaganovich, and Malenkov being the foremost. A more liberal course appeared to be indicated by the secret but well-publicized downgrading of Stalin by Khrushchev at the Twentieth Congress of the Communist Party in February, 1956; the so-called "thaw" in intellectual life; and some efforts at relaxing international tensions. But a new though incomplete return to a tougher course was made in the wake of the events of October, 1956, in Poland and Hungary and their echoes in the U.S.S.R.

By and large, the changes in domestic and foreign policy introduced since 1954 have shown considerable imagination, dynamism, and flexibility. The basic structure of power, the form and fiction of controls, and the nature of tensions in Soviet society have remained substantially unchanged. The most important feature of the present period may well be that, unlike the latter years of stifling Stalinism, the entire system has again come into motion. Policies and personalities are changing,

and the myth of Stalinist infallibility has been shattered once and for all. It is useful to think of the major problems, as the Kremlin faces them, as difficulties which have been with the Soviet regime for years but which today require attention and resolution with particular urgency and daring.

Government: Form and Fiction

Leadership, Stalin once remarked, is "the ability to convince the masses that the Party's policy is right." In its broadest sense, the task of propaganda is to dispel doubts, secure voluntary compliance, and keep up the spirit of urgency and participation. The Kremlin seeks to secure fullest allegiance not only through the network of many thousand propagandists and through the interminable reiteration of stock phrases and slogans in all media—from elementary schools to television. It also strives to buttress the sense of identification by an extensive edifice of pseudo-democratic trappings, which conceal more often than they reveal the genuine nature of Soviet power.

Formally, the Constitution of 1936, as amended, includes a bill of rights (with the right to work, education, social security, and leisure, and equality regardless of nationality, sex, and social origin). It pledges inviolability of person and home, and it provides for elective and presumably responsible organs of government. The equivalent of a parliament is the Supreme Soviet of the U.S.S.R., a bicameral legislature elected every four years by general, direct, and secret ballot. One chamber, the Council of the Union, consists of deputies elected on the basis of territorial districts (with one electoral district for approximately 300,000 inhabitants). The other, the Council of Nationalities, assures representation according to the constitutional status and approximate size of each national group (from twenty-five deputies for each of the largest, down to one for each of the smallest administrative units based on nationality).

This elaborate system is in fact meaningless. Formally the final repository of authority, the Supreme Soviet, in actuality is a rubber stamp which always acts unanimously. The deputies are picked in advance of election so as to include some known figures—writers, generals, chess players, fliers—and also a few dairy maids and unskilled workers. About nine out of ten deputies are members of the Communist Party. The elections themselves, without opposition candidates, are a mere formality, with over 99% "voting" for the official slate.

When the Supreme Soviet is not in session (which is true most of the time), its

Presidium (elected by it) has full authority to issue decrees, which later are retroactively approved by the two chambers. The chairman of the Presidium is the head of state, a powerless figurehead; at present he is Marshal Kliment Voroshilov.

The Supreme Soviet elects the Supreme Court and the Procurator-General (a chief prosecutor with considerable powers), and confirms the Council of Ministers, which is the cabinet of the federal government. This Council (until 1946 known as the Council of People's Commissars) is headed by a chairman (Premier). Stalin did not bother to assume the Premiership until 1941 (though he had complete control of the government long before); he passed it on to Georgi Malenkov, who, upon his resignation in February, 1955, was succeeded by Nikolai Bulganin; in March, 1958, Nikita Khrushchev in turn succeeded him in this position. In each instance control of the party (Stalin, Khrushchev) preceded control of the government machine; control of the latter without the former (Molotov, Malenkov, Bulganin) has been tantamount to impotence.

In regard to the structure of government, the Khrushchev era has seen two moves of significance. One has been the shift of some functions from ministries to a variety of government "committees" directly subordinate to the chairman of the council of ministers; the prime example of this is the substitution of the Committee of State Security (KGB) for the previously full-fledged Ministry of State Security (MGB) after the purge of Beria and associates. The other has been the administrative decentralization initiated in 1956-57. There was a widespread feeling in Moscow that the top-heavy over-centralization of the Stalin period was stifling initiative, that efficiency demanded some diminution in the direct controls of the central government, and that regional and national units felt their state rights trampled on. It is likely that decentralization was one of the several issues in the conflict among the Soviet leaders in 1957.

In actuality, the administrative changes involving the shift of some responsibility away from Moscow, do not seem to have influenced output significantly, nor to have reduced the effective control of the party; if anything, party control is more direct when it does not have to vie with the central state bureaucracy. For it is the party—or, more correctly, its leadership—that holds the reins of power.

The Communist Party

Real power resides in the Communist Party of the Soviet Union (CPSU), recognized by the constitution as the vanguard of the masses and endowed with

authority which has permitted it to emerge victorious from every real or potential challenge in the past forty years. Khrushchev's victory, like Stalin's a generation earlier, is the victory of the party machine, and Moscow openly states that the role of the party will continue to increase, while "administrative and repressive" functions (state bureaucracy, army, and police) will "lose their former role" in the Soviet state.

The Bolshevik Party has grown from a membership of some 300,000 in 1918 and 1,900,000 in 1938 (after extensive purges), to nearly 8,000,000 today. It is still a select group, thoroughly screened, and subject to special obligations but also special privileges. As a group, it is the defender of the revolutionary order, a model for all to emulate, and the holder of political monopoly. While state, economic, and other institutions may be decentralized and reorganized time and again, the Party has retained—and, it is safe to say, will retain—its highly centralized, disciplined character as a matter of principle and of expediency.

The party organization has spawned almost half a million cells ("primary party organizations"), which exist in virtually all factories, farms, and government offices. Operating as essential "transmission belts," they are responsible to district (county) committees, which in turn are under the direction of regional (provincial) committees, with the lower officials in each instance named or approved from above. The higher strata are represented by party organizations on the level of each Union Republic and finally, at the top, the All-Union leadership.

Formally, infrequent Party Congresses are supreme in determining strategy and electing the Central Committee, which is the most powerful single body in the country. It is composed of about 150 members and "candidate" members picked to "guide the entire work of the party" and "direct the work of Soviet organs." Under Stalin the Central Committee atrophied and became as much of a fiction as did other institutions; under Malenkov it continued its ineffective existence. Khrushchev, on the other hand, appears to have "packed" it and restored it as a key instrument of government.

The importance of the Central Committee is enhanced by the fact that it directs a variety of staff departments, such as the Agitprop (responsible for "agitation and propaganda"), the Military Department in charge of political control and indoctrination in the armed forces), the Foreign Department (which, since the dissolution of the Communist International in 1943, is responsible for contacts with Communist Parties abroad), the so-called

Cadre Department (which has the crucial say-so on personnel selection and promotion), and the supervision of the tens of thousands of party schools throughout the country.

The Central Committee meets in plenary session only about two or three times a year. In the interim, much of the actual work is carried on (in addition to the staff departments just described) by its Secretariat and the party Presidium (until 1952 known as the Politburo). The role of the Secretariat is suggested by the fact that Stalin was Secretary-General of the party during his rise to power, and Nikita Khrushchev, too, used the similar post of First Secretary of the party (which he gained in September, 1953) as the springboard to dictatorship.

When Stalin's heirs resolved to broaden the base of control, they had in mind a return from the dictator's one-man rule to "collective leadership" within the Presidium, a body of about fifteen members. It is here that struggles within the ruling elite can most easily be detected. It is the Presidium's members who constitute the real "interlocking directorate" by simultaneously holding key ministries or positions in the army and in economic life. This fusion of party and state functions was temporarily suspended during the struggle for Stalin's succession, but by 1958 the "collective leadership" had itself become a sham, and Khrushchev added the Premiership to his earlier control of the party.

Differences among the Presidium's members have probably existed at all times. It appears that Khrushchev had to appeal to the somewhat broader Central Committee (which he had "packed") for support against his opponents in the Presidium in the struggle which, in June 1957, led to the ouster of Georgi Malenkov, Viacheslav Molotov, and Lazar Kaganovich from the Presidium. Personality and organizational differences were superimposed on policy differences among the leaders. Molotov stood for a Stalinist course which would have continued most elements of terror, compulsion and "cold war"—either as a matter of principle or because he feared that any relaxation was dangerous. Malenkov stood for a series of cautious but real changes which might have carried the U.S.S.R. further away from the Stalinist model in the direction of greater emphasis on consumer demands and perhaps a corresponding foreign policy of retrenchment.

Khrushchev, occupying a middle ground, succeeding in ousting his rivals (as Stalin had) thanks to his control of the party apparatus. It would be naive to assume that such rivalries can be stamped out once and for all. The system itself gener-

ates new conflicts which, in the absence of free public opinion, must be expressed within the leading bodies such as the Central Committee and Presidium.

There is at present no obvious leader, cause, or organization around which anti-Khrushchev elements could rally. While the nature of controls is much as it was in Stalin's days, a new leadership and a new generation are rapidly taking over the reins of the party. Of all the men who have sat on the Politburo since 1919, there are only two in power today (in addition to Voroshilov, who is without genuine influence): Khrushchev and his first deputy, Anastas Mikoyan. All others are relative newcomers—most often not revolutionaries but technicians and bureaucrats.

The party itself has been transformed from a conspiratorial into a mass movement; from the master of a "proletarian" to the manager of a bureaucratic dictatorship; from the locus of idealism to a "gigantic club of time-servers." Yet it would be a mistake to look on the party as only a creature of the leaders' will. If only because virtually all Soviet officials and intellectuals, all men of real or potential influence are in the party, it is, also the arena of (often muted) debates and differences. Much of the ferment of recent years has centered in party circles, and virtually all spokesmen for unorthodox ideas have been party members—or, in the case of some of the student leaders, members of the party's youth affiliate, the Komsomol (Young Communist League). It is important not to look upon the party leadership or the party membership as a homogeneous, undifferentiated mass.

Police and Terror

In the view of many, the extensive and systematic use of terror is the greatest indictment of Soviet totalitarianism. It is an index to the sense of insecurity of, and the lack of full allegiance to, the regime. In Bolshevik theory, all government is force, and terror as "the sword of the revolution" is a necessary and legitimate instrument of power so long as enemies remain within and without. Terror is also the counterpart to propaganda: where persuasion fails, there remains the ever-present threat—both the "eyes and ears" of the regime and its blackjack.

The so-called Extraordinary Commission (Cheka) established in December, 1917, was the first of several Soviet agencies created to enforce "revolutionary justice" without due process of law. Soon it was made a permanent part of the Commissariat of Internal Affairs (NKVD) as the GPU. It was extensively used against "enemies"

within the party, against remnants of anti-communist movements, and wholesale against recalcitrant peasants who opposed collectivization. In the 1930's the NKVD greatly strengthened the repressive machinery, expanded the secret police and system of informers, took charge of the rapidly growing network of forced labor camps as well as border guards and "troops of the interior." It thus emerged as dreaded "state within the state." Its power continued unchecked, and the reign of terror, particularly intense between September, 1937, and July, 1938, has remained a ghastly experience in the memory of all who survived it.

Inevitably the operation of the NKVD (since 1946, the MVD, or Ministry of Internal Affairs, and the MGB, or Ministry of State Security) aroused opposition not only among the voiceless masses, but also among the army leadership, managers, intellectuals, and party brass. While the details are still obscure, it is clear that the chief (from 1939 to 1953), Lavrenti Beria, was at the center of bitter struggles at the end of Stalin's life and in the months thereafter. His arrest and execution (June and December, 1953, respectively) were only the most dramatic moves in the concerted effort of other Soviet leaders to eliminate the secret police machinery as an independent force whose power and abuse they feared. Now headed by Ivan Serov, the Committee of State Security is directly responsible to Khrushchev. Although it supervises substantially the same organization, it is unmistakable that the operations of the police machine have been subjected to the same "rationalization" that has recently characterized other areas of Soviet public life.

Most important have been the reduction in the atmosphere of terror in everyday life and the extensive amnesties of inmates of forced-labor camps. If official figures can be trusted (and there is some evidence that at least their general magnitude is credible), nearly three-quarters of all concentration camps, which had held literally millions, have been dismantled since Stalin's death. In the remaining camps (released inmates confirm), the previously abominable conditions have improved in regard to food, housing, and general treatment. Revolts in the Vorkuta and Karaganda camps in 1953 may have contributed to this change of policy. Measures introduced in 1957-58 aimed at having forced labor sentences served within the geographic area of the convicting court and at giving each community authority to oust from its midst "anti-social elements" as it sees fit.

While these latter moves are still in state of flux (the new criminal code has

likewise been under revision for several years), the easing of terror is exemplified by the abolition of the Special Board of the MVD, which since 1934 had had authority to pass secret sentence without normal charges, trial, or counsel. Acknowledgment of extensive abuses in the Stalin era, release of many former "offenders," and recent insistence in Soviet journals and pronouncements on the need for "legality" are welcome developments for those in Soviet society who look for some stability, routine, and order.

Nonetheless, terror remains as a powerful threat, and the leadership is prepared to use it. It has been argued persuasively that the Soviet system cannot dispense with it, regardless of who is at the top.

The Armed Forces

The other institution of "raw force" in the Soviet Union is the military. The Red Army was created in the early days of civil war and foreign intervention (1918-20) as the defender of the new order. From the outset the political leadership determined to inject special checks into the armed forces, partly because it feared the emergence of a popular general who might challenge the revolutionary leadership—the specter of "Bonapartism"—and partly because of the Communist desire to indoctrinate and control all its subjects, especially those who carry arms.

The chief instrument of control has been the political commissar, at times called deputy commander for political affairs. The commissar, a party man, has been a permanent fixture at each echelon of the Soviet armed forces. The contest between the latter and the party has manifested itself in the alternation between unity of command (in which the military commander was superior to the commissar) and the co-equality of authority between commander and commissar. Other channels of political control have been the system of party and Komsomol cells in the armed forces, a network of political informers, and the so-called "OO" (Special Sections) reporting to the MVD.

On the whole, the military have ranked high in prestige and rewards in Soviet society. In spite of this—or perhaps because of this—the military leadership has been heavily hit by purges, such as the execution of Marshal Tukhachevsky and other top commanders in 1937, now acknowledged to have been based on phony charges. The eclipse of the popular Marshal Georgi Zhukov and the armed forces, in general, as a political factor during the postwar years was indicative of the party's assertion of supremacy. Stalin's death

returned the army leaders to greater influence. Zhukov was the first military man to join the party Presidium and become minister of defense. However, the attempt of the marshal to reduce the power of the party-run Chief Political Administration in the armed forces was a major cause of his ouster in November, 1957. The party machine cannot tolerate autonomy of the armed forces any more than from any other segment of Soviet life. Indeed, so long as all key commanders are party men and so long as party discipline remains strong, the army dictator is an unlikely prospect on the Soviet scene.

Arts and Sciences

The Soviet regime has exerted great effort to expand educational and cultural facilities and services. While it is uneven in quality and greatly biased in some fields, the ten-year public school—which increasingly becomes the norm for Soviet citizens—offers a fairly solid foundation of learning, particularly for the training of specialists in the industrial society which the U.S.S.R. has become. Higher education and a wide-flung network of technical and adult-education courses add to the opportunities for learning open to most Soviet citizens. Some branches of arts and sciences have received generous state support, and Soviet successes in opera and ballet, nuclear weapons, and space satellites indicate that such selective concentration on desired fields of priority can yield spectacular results.

While the Soviet scientist and technologist can operate with relative freedom, the creative artist—the writer, the painter, the composer—and especially the historian and political scientist have been subjected to severe dictation of what may and what may not be said and done. The party "decrees" on various occasions what is good music (and the proscribed works are no longer performed), what is good history (and the condemned theories and books vanish, at times along with their authors), what is good literature or criticism or theory of language.

Such thought control cannot but be abhorrent to all but the opportunists among Soviet scholars and artists. Even if they have enjoyed material advantages and considerable prestige, writers, artists, and scholars were inevitably in the forefront of those pressing, after Stalin's death, for a relaxation of intellectual controls. The resulting "thaw," however limited, has seen the first significant and perhaps irreversible return to some creative freedom and the expression of some unorthodox ideas.

The new latitude was used by some to an extent clearly unwelcome to the Krem-

lin. And, in 1957-58, government policy moved against the non-conformists among the Soviet intelligentsia to keep the "thaw" from becoming a "flood." In mid-1957 Khrushchev formalized the tightening by reaffirming the imperative of "party-ness" (i.e., strict conformity with political directives issued by the Kremlin) in matters of arts and science. Political controls over intellectual life must remain. As a result in 1958 things were a far cry from conditions of creative and academic freedom, though they were markedly better than before Stalin's death. As in other areas of Soviet life, the rulers are caught between the desire to encourage creativity and devotion by relaxing the stifling controls, and the fear that by doing so they will unleash forces that may prove their undoing.

The Soviet Economy

Probably the greatest lasting accomplishment of the past forty years is the forced economic growth of the Soviet Union from a relatively backward state to a leader in many branches of economy, second only to the United States. This growth in some fields has been accomplished through tremendous exertion and privation and at a high cost; it has meant the neglect of other areas of the economy, and often of welfare and consumer demands. Economic development is basic to both Marxist thinking and Soviet experience. State ownership of the means of production and total direction of the economy are axiomatic. Indeed, nationalization (without compensation) of industry and land were among the first steps of the revolutionary government. For a decade, under the N.E.P., it tolerated—in the interests of rapid reconstruction and because it was relatively weak—a "private sector" while holding fast to the so-called "commanding heights" of the economy. In the past generation, virtually all economic activity has been non-private and closely directed from above.

After early efforts at partial economic planning (e.g., in electrification), total planning set in with the Five-Year Plans initiated in 1928. These have attempted to cope with economic and administrative problems of staggering complexity in setting goals, determining priorities in production, allocation, and regional distribution, as well as in supervising and improving performance, management, and distribution. The planning machinery has centered in the State Committee(s) for Planning (Gosplan), attached to the Council of Ministers.

In this giant effort the major emphasis has been on expansion of heavy industry, armaments, and machine-tool production

(as the basis for further growth). "Catching up with and surpassing" the West—especially the American, economy has been an explicit goal. In the drive for its attainment, a variety of devices have been used—incentives, emulation, extra rewards—severe labor discipline, pooling of effort; at critical points, along with manipulation of taxes, subsidies, allocation of equipment, and controlled investment pool. Not only has the rate of investment (in terms of its share of the total national product) been substantially higher than is normal under a market economy, but out of the resources invested, roughly half (or, twice as much as in the United States) has gone into industry—particularly heavy industry—and strikingly little into services and consumer goods.

Soviet policy-makers have recently reaffirmed their continued emphasis on heavy industry. At the same time they assert that the combination of industrialization, electrification, automation, and nuclear power can remedy the past neglect of the consumer sector. This analysis may be at least partially accurate, since the phenomenal rate of growth in heavy industry (about 15% annually) is beginning to slow down, and total capacity has reached a point where marginal productivity in consumer goods can easily be high and easy to utilize—provided the necessary political decisions are made.

Such political decisions have been at the heart of some recent controversies in Moscow. Some of the obstacles and bottlenecks are clearly built into the economic system: waste, stifling of initiative, inefficiency, stress on quantity at the expense of quality. Though serious at times, such difficulties and others have not been disruptive in the overall picture. In addition to agriculture, two of the economic headaches faced by Stalin's heirs have been over-centralization and the low standard of living. Recent reforms have aimed at increasing efficiency and obviating discontent. Apparently a severe dispute between planning officials (i.e., political decision-makers) and economic managers took place. After a brief ascendancy of the former (December, 1956), the party machine hastily forced through an ambitious reorganization (spring, 1957) which transferred the power of most economic ministries to 105 administratively decentralized territorial units (*sovmarkhozy*, or "councils of national economy"), each subject to local (party) control. In addition to its part in the struggle for supremacy in Moscow, this reorganization may do a little, but not much, to revive initiative and make allowances for local diversities to a greater extent than heretofore.

The heavy burden imposed on the econ-

omy by military expenditures—estimated at some 15% of the annual commitment of resources—is not likely to be substantially relieved. Yet a small shift in the share devoted to heavy-industry investments could make a relatively significant difference in consumer goods. Apparently this was part of the program, or at least appeal, of the Malenkov faction in 1953-54. Its popularity is easy to understand if one bears in mind that the standard of living of the average Soviet citizen has remained dismally low. One careful study put the Soviet worker's real wage in 1950 at one-sixth of the American worker's. Since then, it is true, some improvement has taken place, but nothing so striking as the giant strides made during the same years in the production of iron and steel, the extraction of oil and coal, or the harnessing of electric and nuclear power.

The Soviet population—totaling about 205 million—grows at an annual rate of about 3,000,000. It is obvious that food, housing, and clothing, not to speak of less essential items, must be produced in increasing numbers if only to maintain the present low per capita levels. In spite of the present clear-cut priority on heavy industry (reasserted since 1955), the Soviet leadership is in various ways tackling the greatest needs in this field—by seeking to provide more food and better housing; by launching a vast campaign aimed at equaling U. S. per capita production in dairy products and meat; and especially by reorganizing agriculture.

Agriculture, the Achilles' Heel

The peasantry has been the perennial headache of Marxism and of Russia—in Tsarist as well as Soviet times. The communist ideal in agricultural organization has been the state farm—a large “rural factory” employing farm hands, just as the urban factory employs workers. Such state farms (*sovkhoz*) exist, and Khrushchev's recent effort to cultivate so-called “virgin land” in Kazakhstan and Siberia has produced an expansion of state farms to about one-fourth of the total sown area of the U.S.S.R.

The prevalent type of Soviet agricultural organization, however, is the collective farm (*kolkhoz*), conceived as a long-term compromise between communist objectives and peasant attachment to soil and property. Such a concession to peasant sentiment has been necessitated by the obvious desire to enlist peasant cooperation in procuring the much-needed food. While on state farms farm hands are paid regular wages, in the collective, after all obligations are paid, the farmers share in the income and harvest and are allowed to

possess modest private garden plots which they can work in their spare time.

Wholesale collectivization, from 1929 to 1933, took a gigantic effort and an enormous toll in human lives and sacrifice. Millions of families were uprooted or exiled; millions of heads of cattle were killed; here and there pitched battles were fought. But the state prevailed. The coincidence of collectivization with the major industrialization drive was not accidental: mechanization in agriculture was needed to release millions into the new industries; above all the peasantry was singled out to bear a major part of the burden and cost of industrialization. Finally, the cities had to be assured adequate and cheap food, largely by requiring the collective farms to make compulsory deliveries to the state at minimal prices.

By the time Stalin died, agriculture was again—or still—in a state of serious crisis. After deliveries to the state and the state-owned Machine-Tractor Stations (M.T.S.), which lent machinery to the farms against heavy payment, the residuum for *kolkhoz* members was usually low. Discontent continued to smolder, and the collectives were repeatedly branded as centers of “survivals of individualism.” Peasant hostility to compulsion and over-organization (rather than to cooperative agriculture as such) invited retribution in the form of tighter political and economic controls. Worst of all from a national point of view, harvests and livestock were woefully inadequate. The population was growing faster than the food supply, while more and more people (especially young males) were leaving the farms for the cities.

The Khrushchev era has seen a determined effort to cope with this crisis. Compulsory deliveries from the private plots were lifted; prices paid by the government for produce procured from the farms were substantially raised; and more capital has been allotted to increase the available farm equipment. At the same time, collective farms have been merged into fewer larger units (to a total of about 80,000 in 1958) for the sake of greater efficiency as well as greater political reliability. In the spring of 1958 came the drastic decision to dissolve the M.T.S. and sell the machinery to the collective farms: these centers of administrative and political control in the country-side had long been objects of *kolkhoz* hostility because of the inefficiency and “dual-bossism” which their existence involved. This is considered an important step in the direction of increasing responsibility and initiative of *kolkhoz* managers, of reducing the overhead, and of satisfying some peasant complaints.

Simultaneous efforts have been made to increase the area under cultivation, to

emulate foreign (particularly U. S.) techniques, introduce new crops, and stop the flight of manpower from the land. It is important to note that the decision has been to bolster the existence of the collectives rather than to push for their transformation to the politically-preferred state farms. This reveals the urgency of improving the situation—a sense of urgency best reflected in the decree, issued in June, 1958, to end all forced deliveries from collective farms, in a gamble by the government to increase productivity in this fashion by relating peasant interest (and income) to the size of the harvest.

These drastic measures have brought some amelioration. The grain harvests, averaging about 80 million metric tons prior to Stalin's death, have risen to about 100 million—the goal of 180 million metric tons still seems quite unrealistic. Likewise the total number of heads of cattle rose from 56 million in 1953 to over 66 million in 1958—but has not yet exceeded the level of 1928 or even 1913.

Khrushchev has staked much of his reputation on his ability to remedy the ills in agriculture, which he considers a domain of his own special competence. The results will be awaited with more than passing interest. One other device has been discussed but thus far not widely practiced: wholesale import of food from abroad. Indeed, the Soviet Union faces the paradoxical situation that, while it is still an agricultural country (55% of the population remains rural), it may find it easier to export raw materials and industrial products in return for food, than to produce enough sustenance for its own population.

Soviet Society

Forty years of Soviet experience have transformed Russia from a fairly backward country that was making rapid but highly erratic strides toward economic and political growth, into a rigidly disciplined, hierarchically organized, leading industrial society. In the process, the social structure and the aspirations and values of the people have changed.

In the official view, Soviet society consists of three groups of "toilers"—workers, peasants, and intellectuals—harmoniously cooperating as equal, non-antagonistic elements. In reality, considerable disparities exist and probably continue to grow—in income, social status, and style of living. In part, these are the intentional results of the Bolshevik upheaval; in greater part, they have proved to be the necessary by-product of building an industrial state.

A new elite has emerged. It includes top

party, government, and managerial "brass," as well as scientists, artists, and writers. Various intermediate layers of bureaucrats, lesser intellectuals, clerks, and foremen make up the social strata below them. Workers as a group rank next in the proletarian state; and peasants make up the vast bottom class of the Soviet pyramid. If it is not impossible for the top artists and officials to earn 100,000 rubles or more a year, it is also not unusual for the poor to be barely above the starvation level; this level is indicated by the fact that the minimum monthly wage was only recently raised to 270 rubles in the country-side and 300 in the city. The typical wage is probably somewhere between 600 and 1,000 rubles a month. This low level, in terms of purchasing power, is, however, somewhat offset by the greater number of wage-earners per family and by the availability of free (or low-cost) housing, education, medical services, and other features of the "welfare state."

These welfare aspects have been broadly accepted as a matter of course. Nor is there any evidence that state ownership of industry, natural resources, and transportation causes popular hostility. Many citizens have come to feel that they have a stake in the system and that they owe to it their advancement and education. Others have unwittingly absorbed much of communist doctrine and propaganda.

Yet considerable tensions remain—tensions among individuals and groups as well as tensions between rulers and ruled. Some of these exist in all societies, but they are particularly grievous under Soviet conditions because of the unique pressures which the system applies on its citizens and because the grievances cannot be expressed or resolved. Some of these problems have been the inevitable result of industrialization and education. Indeed, one may wonder whether the demands of totalitarianism can in the long run co-exist with the demands of an educated, efficient, industrialized society.

With the rise of a new generation—the second Soviet generation—the extent to which people can be manipulated and manhandled has shrunk. The regime has always had to count with passive resistance and popular grievances; as a result it has conducted—just as in foreign affairs—a policy of calculated risk, advancing at any one time only so far as it could without endangering its own hold, a zigzag policy of the carrot and the stick administered in different doses. The use of Russian nationalism, the compromise with and utilization of the Orthodox Church, the collective farm itself are only a few examples of such concessions. Yet since Stalin's death all "wings" of the new lead-

ership (including Beria, Malenkov, as well as Khrushchev) have been more sensitive to popular pressures for greater security, greater opportunity, and higher standards of living. While especially the latter desire is strongest among the lowest-paid, it is (as in other societies) the intelligentsia that has emerged as the cautious spokesman for such aspirations.

It would be an error to think of these demands as subversive or revolutionary. Overwhelmingly, those who voice (or wish to voice) them stand for changes within the framework of the existing order, accepting it as a point of departure—either because they know no other or because they cannot see any other way. Probably only a small number today favor a forcible replacement of the system in toto, and even fewer a return to the old regime.

Yet it is precisely in the last few years that the sense of the inevitable and inalterable which Stalin had sought to inculcate has been shattered by the exposure of his crimes and the practical evidence that different—and contradictory—policies can be pursued in the name of communism. The official image of a steady progression to the communist millennium, both as a magnetic vision and as an excuse for present imperfection, no longer carries the sense of conviction it once did. Many, moreover, have come to be more interested in peace, predictability, and plenty today than in hypothetical benefits to generations yet unborn—and, in a thermonuclear world, perhaps never to be born. More questions are raised—and, the Stalinist freeze once overcome, the regime has been obliged to look and listen. Behind the smooth façade of “monolithic” totalitarianism, muted struggles, considerable soul-searching, and untold mental torment go on. The processes of social, political, and economic change in the Soviet Union are by no means over.

Is This Communism?

Communist leaders can point to many accomplishments. They will explain that the many privations were necessary, that most of them hit the idle or hostile elements of society, and that the worst is now over. They will explain that Soviet Russia has traversed only the “lower” stage in the building of communism, and that the better life will come once everyone does as he is told—and once the outside world either joins in or at least leaves the Soviet orbit alone.

Is it communism, though, that the Soviet leaders have been building? Even while holding on to the essence of their ideology, they have stood their own program on its head. The revolution which

was to do away with the state and promised the “withering” of all compulsion, gave rise to the greatest Leviathan the world has known and to a shocking abuse of terror. A system that professed to create a classless society has established new privileges and gradations of prestige, property, and power that run counter to the vision of a commonwealth of equals. The proletarian revolution has been successful in—and appeals to—peasant countries. At the same time it gives birth to a comfortable middle-class mentality—with middle-class tastes and values—while in the name of the international working class it suppresses workers’ uprisings in Vorkuta, Poznan, and Budapest and assails workers’ councils in Russia, Poland, and Yugoslavia as tools of reaction. A movement that proclaimed anti-imperialism as one of its foremost planks has established its own empire by conquest and subversion, with armed forces, diplomacy, and supporters abroad all marshaled for the expansion of the Soviet orbit throughout the world.

Foreign Policy: Ends and Means

Since Lenin and his followers seized power, the Soviet state has undergone a striking growth in strength and size. Foreign policy has changed apace. In the early days of fervent faith in grass-roots revolutions throughout the world, diplomacy was scorned as a “bourgeois” tool. By 1945 Stalin had come to toast clumsily the accomplishments of Soviet diplomacy: “A good foreign policy counts for more than two or three armies at the front.” Today foreign policy is a key instrument for the advancement of Soviet objectives.

Foreign policy in the Soviet sense is not limited to diplomacy. In addition to conventional international contacts through ambassadors and ministers, Moscow has used the international network of Communist Parties and so-called front organizations as means of pressure and vehicles for the promotion of its interests. And it has viewed the peoples of the world as targets of persuasion and potential allies in the struggle against their governments.

Lenin, Stalin, and Khrushchev have amended and reinterpreted individual facets of Marxism. Increasingly they and their propagandists have made use of it to justify, after the event, policies and occurrences not foreseen and not logically reconcilable with theory. In spite of this cynical manipulation, however, the fundamentals have remained—and seem so deeply impressed on the whole way of viewing the world that they become an automatic response, a tool of analysis no longer questioned but mechanically applied. “Marxism-Leninism” imparts to the Soviet outlook continuity, unity, and consistency

which make nonsense of the frequent questions, in the West, whether "Moscow has changed its goals."

This outlook includes not only the belief that communism reveals the scientific truth but more specifically that the course of history will inevitably bring about the world-wide triumph of communism over capitalism. Human action can help this process along, and it is here that tactical shifts are essential. As Lenin said, "One must combine with the greatest fidelity to the idea of communism the capacity to enter into all necessary, practical compromises." Thus, while the ideology helps us understand long-range aspirations, it cannot be used to predict short-term moves, which are based largely on tactical estimates of practical political opportunities.

In this light, the notorious zigzags of Soviet conduct are but necessary and passing deflections from a consistent line. The same "dialectical" view that explains history in terms of the class struggle sees the world conflict as a geographic projection of this contest between two inevitably hostile camps. In this struggle between opposite poles, the interests of the working class (in Moscow's terminology) are equated with the Communist Party which claims to represent them, and the Soviet state becomes the embodiment of these interests.

Revolution on the Installment Plan

In 1917 Soviet leaders had expected communist revolutions elsewhere in the world to erupt and succeed promptly. But the following years proved to be bitterly disappointing, and by 1921 Lenin had convinced himself that for some time Russia would have to struggle alone as the sole Communist-run state. Hence a period of "peaceful co-existence" was necessary—if only to permit Soviet Russia to catch its breath and build up its economic and military might.

By the 1920's Moscow had thus learned that (1) world revolution would not come suddenly but, as it were, on the installment plan; future wars, crises, and depressions would usher in new "rounds" in the inevitable but seemingly protracted struggle; and (2) revolution apparently need not always be spontaneous but could be imported—or imposed—from without: in Poland in 1920, in Outer Mongolia and the Caucasus in 1921, the Red Army sought to bring "the benefits of communism" to areas where the local Bolsheviks themselves had been unable to seize power. But then, from 1921 to 1939, there was no power vacuum anywhere along the borders of the Soviet Union, and realism commanded Moscow to refrain from suicidal aggression.

Moscow took advantage of the long lull between world crises—the period of "temporary stabilization of capitalism"—to build up the Soviet economy and transform Soviet society. While discipline and coordination among the various Communist Parties throughout the world were being tightened (through the machinery of the Communist International, or Comintern, founded in Moscow in 1919), the Soviet foreign office strove to establish "effective business relations" between the U.S.S.R. and other states in more conventional ways. Diplomatic recognition and commercial treaties gradually readmitted Soviet Russia to the family of nations. "Realism" permitted Moscow to make diplomatic deals and conclude alliances with countries which even outlawed the Communists (such as Turkey in the 1920's, Nazi Germany in 1939-41, and the United Arab Republic in 1958). The same kind of realism came to equate the interests of international communism with those of the Soviet state—a comfortable syllogism that implied that Moscow could do no wrong.

Soviet policy—and its successes—have been rooted in a combination of ideas and power; the two fuse harmoniously in Soviet theory and practice. Yet until 1939 Soviet foreign successes were minor. In 1934-35 Moscow abandoned its previous isolation, joined the League of Nations, and concluded alliances with France and Czechoslovakia, as the double-pronged menace of Nazi Germany and expansionist Japan seemed to make common cause against them more urgent than Soviet hostility for the entire "bourgeois" world. Yet Moscow did not abandon this hostility (any more than the other powers abandoned their anti-communism). In 1939, when Stalin was confronted with the choice between an alliance with Britain and France against Hitler, or a pact with Nazi Germany, he chose the latter: it promised rewards far greater and more certain than what the Western powers were prepared to yield.

In the following year the U.S.S.R. acquired, with Hitler's consent, what had been Eastern Poland, annexed the hitherto independent Baltic States, occupied Bessarabia and Northern Bukovina, and after the costly "Winter War" with Finland seized several important Finnish areas along the Soviet border.

This was the beginning of the "second round" of international crises which were bound to enlarge the communist camp. However severe the Soviet miscalculation that led to the German invasion in June 1941, and the ensuing Soviet defeats, Moscow's tactics were flexible enough to marshal a sense of patriotism and a genuine wrath against the invader, to make

full, forced, and strained use of resources and manpower, to beat back the foe—and promptly resume the quest for expansion.

Partly with the consent of the Allies, but largely in defiance of agreements concluded with them during the great partnership of World War II, the Soviet Union—thanks to the advance of the Red Army—gained pre-dominance and soon a monopoly of power in a vast belt of states that came to constitute the Soviet "orbit." The second round, as Moscow has not tired of telling the world, was the fulfillment of a prophecy: it transformed the single communist state—Russia—into a "world system" of twelve Communist-ruled countries—from Albania to North Korea, and from Mongolia to East Germany—a bloc soon greatly strengthened and expanded by communist victories in China and Vietnam.

The demands of communism and the dictates of Soviet security, as Moscow sees them, coincided in justifying the expansion of the Soviet sphere. Once in control, it moved to reshape the newly won areas in the image of the U.S.S.R. While leaving them formal sovereignty, it consolidated all power in the hands of the ruling Communist Party—and a small layer of leaders dependent on Moscow within it. It moved to transform the economy by industrialization, collectivization, and planning on the Soviet model. And, as in Russia, it ruthlessly proceeded to eliminate all real or imagined opposition.

Just as after the first World War the borderlines froze and the areas of opportunity for communism vanished, so again after the "second round" the vacuum produced by the defeats of Germany and Japan was soon filled, and only a few areas of ambiguity remained—such as Berlin and Korea. It was here that the final skirmishes, long and costly, of the postwar realignment between the Soviet and the non-communist worlds were fought.

The Khrushchev Plan

Toward the end of his life Stalin realized that a new "temporary stabilization" had occurred in the non-communist world. It remained for his successors to draw the policy conclusions from this fact. The formula adopted by Khrushchev (in distinction from the more intransigent Stalinists like Molotov) calls for consolidation in Europe and penetration into the "under-developed" countries. Soviet foreign policy has followed it since 1955 and presumably will continue to do so unless a drastic change occurs in Europe—such as an agreement on mutual disengagement, or Communist victory in France or Italy.

The Khrushchev plan recognizes the existence of the Western coalition and the

absence of targets which Moscow could secure in Europe without provoking a wider conflict. Hence the Soviet attempt to freeze the European status quo: on the one hand, Soviet insistence on having the outside world recognize Eastern Europe as a Soviet-dominated area in which the West has nothing to say; on the other, since 1955 the conclusion of the long-delayed peace treaty with Austria, Soviet recognition of the West German government, Soviet withdrawal from the Finnish naval base at Porkkala, and after a breach of seven years a temporary improvement of relations with the Yugoslav state (though not with the Yugoslav Party, leadership, or ideology).

The same strategy calls for a concerted effort to augment Soviet influence in the "colonial and semi-colonial" countries, which Moscow views as the area of greatest opportunity for the present. It has seen, over the past three years, an intense and sometimes successful Soviet campaign to raise its standing in the wide crescent from North Africa to Japan—not so much through local Communist Parties (which do not even exist in some of the countries involved) as through diplomacy, economy, and propaganda. All of these have required a new Soviet posture of strength, peacefulness, and reasonable willingness to show off and share its accomplishments and resources.

Khrushchev's economic policies have included an ambitious attempt to gain leverage in the Middle East and South and Southeast Asia by granting loans and credits on favorable terms, by undertaking to construct industrial and welfare enterprises ranging from steel mills and dams to hospitals and stadiums, and by stepping up mutually beneficial trade. Politically, Moscow has skillfully promoted diplomatic and cultural visits and exchanges (including Khrushchev's and Bulganin's trip to India, Afghanistan, and Burma, and the visits of Nehru, Sukarno, Nasser, and others to the U.S.S.R.). It has played on the broad community of interests between the backward areas and the Soviet Union, posing as the major defender of peace and national sovereignty, as the protector of the small and recently colonial states in their common hostility to the West, to imperialism, to capitalism, and as a model of rapid economic growth as well as educational and scientific progress in a previously backward country.

This shift in Soviet strategy has required some change in outlook as well. Not only has it meant transferring attention from the most highly industrialized states—which had originally been expected to be the first to go communist—to areas with feudal or primitive economies, with large peasant, peon, or serf but hardly any

worker populations. It has involved replacing the traditional communist formula of intransigence, "He who is not with us, is against us," with a new slogan which in effect says, "He who is not against us, is with us today." While this spells no long-range acceptance of neutralism, it does seek to bracket "uncommitted" nations such as India, Indonesia, and the United Arab Republic with the Soviet bloc in what Khrushchev calls the "zone of peace"—an intentionally ambiguous term which capitalizes on the common strivings of the Soviet and "uncommitted" worlds.

The new sense of strength and success in Soviet foreign policy is well illustrated by Khrushchev's facile sayings to American visitors, such as his famous "We will bury you" and "Your grandchildren will live under communism." Perhaps the most telling revision of a Stalinist stereotype has been the abandonment of the formula of "capitalist encirclement." For more than a generation, Moscow repeated that the hostile capitalist powers who surrounded the Soviet state were preparing to attack and destroy the U.S.S.R. and were eager to send (or were actually sending) agents into Russia to sabotage and destroy the Soviet regime. The whole exhortation to "vigilance" on which much of Soviet domestic propaganda was centered, and the call to breakneck economic development fed on the argument that the U.S.S.R. must raise itself by its bootstraps before the "capitalist encirclement" destroys it. In March, 1958, Khrushchev saw fit to abandon this view. The changes in power relations between the Soviet and non-Soviet worlds now permitted some doubt "as to who was encircling whom."

Moscow soon explained that—as a result of the gains in territory, resources, population, and supporters in the "second round," after the end of World War II—the Communist camp is "significantly stronger" than the forces of "imperialism" in the world. It points to the fact that the Soviet orbit (including China) comprises nearly one billion men and that the Communist Parties throughout the world have over 33 million members. It stresses the success of the "anti-colonial" struggle in areas with 700 million people and the growing tide against the West in the remaining colonial areas with some 600 million. The anti-Soviet camp, then, is limited to an American-led coalition of about 400 million people, itself deeply split.

Thus in Khrushchev's view, the short-lived era of U. S. world leadership is becoming a matter of the past. Soviet economic gains, predominance in rocketry, space satellites, thermonuclear development, and even sports are taken as indications of the new Soviet position of primacy and strength.

Coexistence and War

The Communist conviction of ultimate victory has gone hand-in-hand with a skillful propaganda campaign in favor of peace and coexistence. On the face of it, there is a contradiction between championing peace and insisting on the inevitable collapse of your opponent, especially while sanctioning violence as an instrument of change. To resolve this contradiction, one must look at the Soviet view of war and coexistence.

In 1921 Moscow recognized that, since neither the Soviet state nor the outside world had managed to defeat the other, the two systems were in fact "peacefully co-existing." This did not mean that either had abandoned its objectives. It merely recognized a reality and its opportunities. Likewise, after World War II Soviet foreign policy was described by Moscow as "proceeding from the fact of coexistence for a long time between the two systems, capitalism and socialism." (Here and elsewhere it is well to bear in mind that in Soviet parlance "capitalism" includes countries with a social-democratic system, such as much of Western Europe, and the term "socialism" is reserved for countries of the Soviet bloc.)

The important question is whether this coexistence can last. Here the Soviet answer is both evasive and clear. Coexistence, Khrushchev stated in an interview with William R. Hearst, Jr., in 1955, could be "prolonged": "We on our part believe that communism is invincible and the future belongs to the communist system. . . . As to how long this coexistence can last, the answer is that it will depend on historical conditions." During his trip to South Asia he repeated his conviction that "the days of the capitalist system are numbered." Peaceful coexistence can last indefinitely, therefore, provided the non-Soviet world does not attack the U.S.S.R. and, equally important, recognizes the inevitable collapse of capitalism and accepts it. Since the Soviet leaders will give up their objectives only "when the shrimps learn to whistle," the prerequisite of *permanent* peace is the replacement of capitalism by communism without war.

Traditionally communism has distinguished between "just" and "unjust" wars—"Unjust" wars—for instance, between two "imperialist" states—are obviously condemned and must (as Lenin put it) be transformed into civil wars: the toilers in each of the fighting armies must turn their arms against their own exploiters and rulers. "Just" wars—for instance, the Soviet struggle against the Germans in 1941—of course call for the fullest support of the national war effort. In substance, any war fought by the Soviet Union is "just"

and must be supported by Communists everywhere.

Moscow gladly acknowledges the crucial role which the Soviet army played, for instance, in establishing the satellite regimes in Eastern Europe and North Korea in 1944-45. It accepts the old saying of Clausewitz that war is a continuation of policy by other means. In the peculiar terminology of Moscow, war can be explained as part of the struggle for peace. As the basic Soviet textbook of foreign policy states, "the struggle for peace can have different forms, depending on the historical circumstances. In one case it may be expressed in treaties, agreements, commercial relations, etc. with capitalist countries. In another case the necessity may arise to liquidate with armed might a hearth of war established by the imperialists at the approaches of the U.S.S.R. At the base of all these actions of the Soviet state lies one aim—strengthening peace."

To recognize the legitimacy of war is not to argue for it. The Soviet government has never purposely involved itself in a war (though it has gladly involved others); both the Finnish war of 1939-40 and the Korean war of 1950-53 (from which, moreover, the Soviet Union formally abstained) were based on miscalculations on Moscow's part: it did not expect the opponent to fight.

Until World War II the Soviet Union was felt to be too weak to embark on military adventures—and too busy with domestic affairs. After 1945, events were running in Moscow's favor. There was no need to risk war if history put victories into your lap without it. While admitting and preparing for the possibility of war, the Kremlin has—especially since Stalin's death—striven to avoid it. This conduct stems as much from the belief in the possibility of peaceful penetration abroad as from a realistic appraisal of the hazards of nuclear warfare.

After years of intensive, secret research, during which Moscow accused the United States of "atomic blackmail" and demanded the cessation of nuclear weapons production abroad, the Soviet Union has itself emerged as a leader in the thermo-nuclear field. Whatever the number of bombs, warheads, and missiles available, it is widely assumed that the United States and Russia have attained nuclear parity: either can effectively paralyze the other in all-out attack and retaliation. This realization contributed to a revision of Soviet military doctrine in the last few years: the previous scorn of "surprise attack" and the traditional reliance on conventional factors (such as manpower, equipment, military organization) have been rejected. Malenkov (and Mikoyan) even went so far as to insist that a new world war would mean the end of civilization—not only of capitalism

(as Moscow customarily avers); that therefore all problems must be solved without war; and that nuclear parity in effect deters the United States from launching an attack on the U.S.S.R., and vice versa.

But Malenkov was soon made to recant—and was himself ousted from power. His view was condemned as extreme and unwarranted in various ways. Yet the terrible prospect of nuclear war has not been lost on the Kremlin. Khrushchev grants that war is no longer "fatally" inevitable (though the distinction, important in Marxist theory, may in practice be so subtle as to be meaningless). In addition, the Soviet authorities have made themselves champions in the drive for the cessation of nuclear weapons tests and perhaps production. In March 31, 1958, having completed a series of tests, Moscow announced their unilateral suspension, reserving the right to resume if other powers did not follow suit.

Yet the Soviet record is a mixed one. It has consistently opposed foolproof control and inspection schemes; it has for years obstructed disarmament efforts through the United Nations; it has insisted that allowing foreign checks on Soviet nuclear activities would be like "admitting a stranger into your bedroom." Nonetheless, many observers feel that control of testing and perhaps of production and stocks of nuclear weapons is, as a matter of self-interest to the Soviet government, a "negotiable" issue—unlike many others—between East and West.

The reasons for Soviet interest in nuclear controls include (1) the desire to free, if possible, the resources now devoted to nuclear research and production for constructive, domestic needs; (2) to freeze the present situation, since Moscow feels it is ahead, and to forestall the emergence of new nuclear powers; (3) to further the disintegration and economic crisis within the Western camp—which Moscow deems a likely result of nuclear disarmament; (4) to obviate the hazards of arming fellow-Communists in China and Eastern Europe with nuclear weapons. Moreover, if they can be circumvented by the U.S.S.R., the pretense of controls would only further improve its relative standing. Meanwhile the Soviet campaign has won it prestige and repeatedly distracted attention from more concrete issues.

While "watertight" agreements may be exceedingly hard to negotiate and implement, the success of talks between Soviet and Western experts (e.g. on policing a suspension of nuclear tests, in August, 1958), suggests the common interest of both camps in exploring further the ways and means of devising rules to prevent the destruction of mankind, without sacrificing the interests and objectives of either side.

Summit and Security

The greater willingness of Moscow to seek agreements was symbolized by the "summit" meeting of heads of state in Geneva in 1955. In reality the meeting brought little agreement of consequence. Since the end of 1957 Moscow has again campaigned vigorously for a new "summit" conference, largely to underscore Soviet willingness to arrive at "peaceful" agreements, Soviet advocacy of nuclear disarmament and disengagement, and Soviet leadership within the communist camp. These objectives once again reflect Moscow's sense of its newly won "position of strength."

Soviet policy in various parts of the globe may be reduced to the following formula: (1) to maximize Soviet strength; (2) to maximize all splits within the "enemy" camp; and (3) to maximize ties and commitments to the Soviet camp.

The Soviet policy to build up its own strength is illustrated in the continued modernization and training of armed forces as well as the Warsaw Pact with the states of Eastern Europe. Khrushchev has remarked on various occasions that a hound must have teeth to be able to bite, and that anyone fighting the U.S.S.R. would "choke on it." Soviet policy-makers have a concern for security—the security of their own rule as well as that of the country and orbit they rule. So far as we know, they are not suicidal blunderers. And, while ideological blinders have persisted for half a century, there is evidence in the last few years of a greater willingness among Stalin's heirs to depart from time-honored axioms in favor of realistic policies.

In the Soviet view, security can be bought in different ways. At critical moments (1918, 1941) it was essential to trade space for time (which is always on their side). More often, however, security has consisted in territorial expansion. The whole concept of aggrandizing the Soviet state combines defensive with offensive purposes. The flexible framework of the Soviet constitution makes provision for "admitting" additional countries to the U.S.S.R. (as was done with the Baltic states in 1940). Other states can be controlled without formal incorporation (as have been Outer Mongolia since 1921 and satellite Eastern Europe since 1945). Short of complete security (which Moscow equates with the complete triumph of communism), Soviet leaders hold that security increases as the territory they control and the influence they wield grow. Hence the reluctance to retreat from East Germany; hence the Soviet insistence on a voice (and perhaps a share) in the Middle East; hence the continued efforts to play off France against Germany, Britain

against the continent, all of Europe against the United States, and generally to weaken NATO and other American-supported military and political coalitions. Hence also the demand that the West recognize the status quo in Eastern Europe: it is here, in the area presumably controlled by Moscow, that the efficacy of expansion has met its greatest challenge.

The Communist World

In spite of the formal dissolution of the Communist International in 1943, obedience to Moscow's dictates and discipline among the various Communist Parties remained high until after Stalin's death. Tito's Yugoslavia alone had managed successfully to challenge Soviet leadership within the communist camp; the real or imaginary followers of a similar "national communism" elsewhere were mercilessly extirpated in the following years. Then, with Stalin gone and his successors less expert and less well-known to foreign Communists, Moscow's pre-eminence came to be questioned. Moscow's insistence that all communist movements must follow the Soviet experience as the "single road to communism" aroused grumbling and doubts, which grew into a genuine crisis of confidence in Moscow's leadership after Khrushchev's denunciation of Stalin in February, 1956. Even such die-hards as Italy's Palmiro Togliatti momentarily asked whether the Bolshevik system as it had evolved in Russia was not rotting at the core and whether it had not forfeited the right of leadership. Instead of centralized dictation, the various revisionists wanted a "commonwealth of communist states" or a "polycentric" system, in which several co-equal capitals (such as Moscow, Peking, perhaps Belgrade, Rome, and Warsaw) would hold equal authority.

Some foreign comrades were soon persuaded that this was heresy. If Moscow ever seriously weighed such a reorganization—as part of the general relaxation of tensions it sought in 1956—the idea was completely abandoned after the events of October, 1956, in Poland and Hungary. These events and their backwash elsewhere drove home to the Kremlin that the short-lived "thaw" was an invitation to suicide. In its relations with the satellite states and with foreign Communists, Moscow now launched on a cautious but determined campaign to suppress all centrifugal elements, to reassert its primacy of authority, and to have the various parties acknowledge (as they subsequently did in November, 1957) that, whatever the leeway permitted each party, all must accept "proletarian international solidarity"—a euphemism for stringent coordination of policies under Soviet leadership.

The new drive for conformity has been dramatized by the execution of Imre Nagy (June, 1958) and the vigorous Soviet attack on Titoism. "Revisionism" in foreign affairs has been a catch-all charge which blasts away at demands for reduced Soviet influence within the "socialist camp," just as the charge of "revisionism" on the home front has been leveled against those who demand less party control over the army (Zhukov), over the state and economy (Malenkov), the police (Beria), and the arts. It is revealing that Moscow seeks to combat most insistently neither the menace of the non-communist world (which is deemed to be marching toward its inescapable doom), nor the "dogmatic left" Communists (the few remaining advocates of more hasty or more violent revolution), but the "revisionist right." The attack is leveled primarily against those in Russia and elsewhere in the communist world who would rethink the problems of industrialization and totalitarianism, of a thermodynamic world and a socialist society, in other than official Soviet terms.

The survival of Tito outside the fold and of Gomulka within it is a constant reminder of Moscow's headaches. Other would-be Titos and Gomulkas—and Nagys—remain within the Soviet empire, and unquestionably other rifts have remained concealed from the public eye. Most important among these are probably Soviet relations with Communist China.

The Chinese Communists came to power and consolidated their hold in the face of a rather doubting attitude in Moscow. On the one hand, a Communist China meant a tremendous increase in the resources, prestige, and strategic perimeter of the Communist world. On the other, to the Moscow-centered Stalinists it foreshadowed the emergence of a power within the Soviet family strong and independent

enough not to accept Moscow's pronouncements and dictates unquestioningly. Indeed, behind the façade of fraternal co-operation, Peking and Moscow appear to have been at odds more than once in recent years, the general trend being clearly a growth of Chinese influence at the expense of Moscow. This was true both of Asia generally (the Bandung conference was an illustration) and of the Communist Parties in the Far East and Southeast Asia in particular. It was illustrated by the apparent prevalence of Chinese, rather than Soviet, influence in North Vietnam, and by the growing part played by Peking in North Korea, Outer Mongolia, and other areas contested by the two communist states. And it was confirmed by the dramatic visit of Khrushchev to Mao Tse-tung in July-August, 1958.

Chinese communist pronouncements on East European events—such as the Yugoslav and Hungarian crises—and on the Suez affair are other tokens of Peking's new role as a world power. Moscow has responded to it with greater circumspection and tact in dealing with China than was true under Stalin, but also with a peculiar hedging on the issue of China's place in nuclear weapons development as well as economic aid. All these reflect the concealed tug-of-war between the two colossi, whose interests for the present and the immediate future coincide, but whose eventual clash, if and when it comes, could be crucial for the communist empire.

Soviet foreign policy thus faces the dual task of coping with potential enemies and professed friends. While it has been scoring some signal successes against the former, it has inevitably run into difficulties with the latter. International communism is proving weakest at the very time when the Soviet state has reached a new pinnacle of strength.

SATELLITE EUROPE

By

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THE TERM Satellite Europe applies to eight communist-dominated states—East Germany, Poland, Czechoslovakia, Hungary, Rumania, Bulgaria, Albania and Yugoslavia. They form a buffer between the Soviet Union and the rest of Europe from the Baltic Sea in the north to the Adriatic in the south.

In the spring of 1958, Satellite Europe

once more found itself embroiled in violent ideological controversy. This time as on previous occasions the villains under attack were President Tito of Yugoslavia and like-minded Communists elsewhere. They were charged with the heresy of revisionism.

The viciousness of the struggle was not limited to invective. In the background,

lurked more potent weapons—economic reprisals against Tito in the form of cutting off promised loans and deliveries of much needed goods, political pressure on Poland and in extreme cases the threat of military intervention—as in the case of Hungary—against any recalcitrant communist state. The gravity of the controversy was tragically demonstrated by the announcement in June, 1958, of the secret trial and execution of Imre Nagy and several of his associates who headed a nominally communist government during the Hungarian revolution in October–November, 1956.

Nagy was a dissident Communist. Two charges were brought against him; one accused him of treason at the time of the revolution, by renouncing Hungary's adherence to the Warsaw alliance of communist states; the second charged him with setting the stage for the revolution (the Communists call it counter-revolution) by the ideas which he propagated. Of the two, the second was considered more serious. Without it no revolution would have occurred. Nagy's ideas indeed refuted several principles upon which communist governments are founded. He disliked collectivization of agriculture, he favored much more attention to the needs of consumers and less to industrial growth. He sought the cooperation of non-communist politicians in running the government. Worst of all, he desired national independence.

Of course, to date no country other than Hungary has staged a popular uprising sweeping away its communist rulers, if only for a moment. But the deviationist ideas of Nagy and his fellow Communists were symptomatic of disillusionment among Communists everywhere with the performance of the system of government to which they had subscribed.

Reds' Special Domain

The Soviet leaders regard the East European states under communist rule as their special domain. They brook no outside interference in the area and tolerate no move toward independence initiated within the area. The Soviet Union rejects any attempt of discussing at international conferences any possible change in the status quo in Eastern Europe. The refusal is based on fear of what would happen if the peoples there had free choice in expressing their political preferences. But it demonstrates the Soviet's stubbornness in holding that the situation created in Eastern Europe is irreversible and will remain so as long as Russia has anything to say about it.

For the past ten years none of the communist governments except the Yugoslav

has enjoyed any independence of action in foreign affairs. This applies even to Poland, which managed to carve out for itself a large amount of freedom of action in domestic matters in 1956. Yugoslavia ruptured its dependent relations with the Soviet Union in 1948 and made it stick. Since then its diplomacy has served but one aim, to preserve independence against encroachments from East and West. As far as the outside world is concerned, the other communist-dominated states act in unison at the command of the Soviet Union. They bolster Russia in its political objectives. They obediently second Soviet policy in the United Nations. They contribute heavily to the Soviet economic offensive against Western positions in the under-developed countries.

This does not mean that they are totally subjugated and without any will of self-assertion. The unity of these countries is much more apparent than real.

Their conquest by communist forces could not easily be averted. It came in the wake of World War II, when Soviet armies swept victoriously over the Eastern portion of Europe and Russia emerged as the dominant power in Europe. None of the countries could withstand the onslaught of Soviet military, diplomatic, or psychological pressure, combined with skillful political maneuvering by local Communists. By February, 1948, when a coup d'état, in Prague, sealed Czechoslovakia's fate Communists were firmly in control of the entire area. Years of extremely harsh exploitation followed. Under Stalin's relentless prodding all countries were rapidly being transformed into mirror images of the Soviet Union. They chafed under heavy police terror, they toiled to meet impossible economic goals, they suffered national humiliation by seeing their historic traditions and cultural values trampled upon in favor of worshipping at the shrine of the "new Soviet man."

Let-up After Stalin

Stalin's successors in 1953 permitted a let-up in the feverish pace of "socialist transformation." They also began to woo Tito to win him back as a member of the "socialist bloc." Their policies unwittingly released latent trends of opposition not only among the captive peoples but also among dissident Communists. The relaxation in pressures topped off by the denunciation of Stalin in February, 1956, encouraged criticism of police and economic abuses by local communist tyrants. Not all countries responded alike. Their behavior reflected a combination of many factors ranging from national tradition to dissension in the Communist Parties. Riots

in Pilzen, Czechoslovakia, home of the famed Skoda works, and in East Berlin in 1953 as well as in Poznan, Poland, in June, 1956, were forerunners of more serious trouble. In Poland and Hungary, the situation clearly got out of hand. In October, 1956, Poland staged a silent revolution by handing command in the Communist Party to Wladyslaw Gomulka, a man who was symbolic of opposition to the Soviet Union. In Hungary, events took an even more decisive turn.

The Choice in Hungary

Neither in Poland nor in Hungary was the Soviet Union able to forestall impending developments. Risking all out war with Poland at the time was apparently considered too high a price to pay to keep Gomulka out of power. In Hungary, it had little choice between losing the country completely and exposing Soviet brutality. The revolution was crushed by massive military might after it had demonstrated that a communist totalitarian regime could be overthrown.

Khrushchev has acted through two formal instruments, the Warsaw Pact and the Council for Mutual Economic Aid. The Warsaw Pact is a military-political alliance concluded in May, 1955, between Russia and seven European satellites (excluding Yugoslavia). Its military commander is Soviet Marshal Ivan Konev. Touted as a counterpart of the NATO structure, it has in time developed more formidable characteristics so far as its lesser members are concerned. It is essentially a means of holding them in check, as Hungary's ill-fated attempt at unilateral withdrawal from the Pact indicated.

The Council for Mutual Economic Aid has existed since 1949. But it came into its own only after Stalin's death and more particularly during the past two years. It is now an effective coordinating agency of the satellite economies. Intraorbit specialization has been pushed at an impressive rate. While it is designed to alleviate unnecessary duplications in economic production among the satellites—it also has the effect of increasing their interdependence and dependence on the Soviet Union, economically and politically the most powerful participant, which is the largest customer as well as the prime source of needed raw materials and foodstuffs. In 1958, intraorbit trade accounted for roughly 70% of the foreign trade volume of the satellites.

Meetings of the Warsaw Pact Council and of the Council for Mutual Economic Aid at Moscow in May, 1958, underlined the role of these organizations in weaving an inextricable web of military, political, and

economic commitments around the satellites. Publication in August of a new theoretical journal in Prague, in turn, underscored the importance of the relentless ideological struggle. The new periodical will be an important weapon in the never ceasing ideological battle against all types of heresies. The articles in the journal will carry the authority and weight of the ruling Kremlin circles. Not to echo these views nor to abide by them will entail grave risks for any satellite.

It may well be, as some observers have suggested, that as of the moment Satellite Europe is a net liability rather than an asset to the Soviet Union. Militarily, little reliance can be placed in the satellite armies, as the Polish and Hungarian events of 1956 showed. Politically, the area is a headache if not an acute source of contamination threatening the "socialist camp" with dissolution from within. Economically, several of the countries are a drain on Soviet resources. Even if this is so, the Soviet Union has given no hint that it considers any part of the area expendable in diplomatic, political, or military compromise. Soviet determination to stabilize the influence of communism in Eastern Europe and persistent opposition to such plans among the captive nations are the keys to future developments there.

Albania

Albania is the smallest and least significant of the East European satellites. It is a backward, economically underdeveloped mountainous little state bordering on the Adriatic Sea. It has no common frontiers with any Communist-dominated country except Yugoslavia. Its exposed geographic position is aggravated by the lack of adequate surface transportation. Access to it from "fraternal" communist lands is limited to a precarious sea route which complicates economic exchange and would act as an almost insuperable obstacle to effective assistance in time of war. The inadequacy of Albanian port facilities has not been substantially remedied during the past few years, despite persistent reports of construction of submarine pens for the use of the Soviet Navy.

Albania's greatest utility to the Soviet bloc consists in its nuisance value in harassing Tito's Yugoslavia. On a number of occasions since 1948, Albania was chosen as springboard for propaganda attacks on Yugoslavia. The common frontier provides opportunities for infiltration of agents into Yugoslavia and escape of Soviet sympathizers from Yugoslavia as the case may be. It can also set the stage for

frontier incidents should they be deemed desirable to precipitate more serious quarrel with Yugoslavia. In the late spring and summer of 1958, following the aggravation of the dispute between Tito and the Soviet bloc, a number of dissident Yugoslavs indeed made their way across the Albanian frontier and a series of minor border clashes also took place.

Current tension with Yugoslavia overshadows Albania's traditionally hostile relations with its other neighbors, Greece and Italy, although Italy continues to serve as a base of operations of Albanian refugees who seek to overthrow the present communist regime. Throughout World War II, Albania was occupied by Italian troops, who caused King Zog to flee. In the late 1940's, in turn, Albania was used as a supply base and asylum for the Greek communist rebels who were engaged in civil war against the Athens government.

Strained relations with Yugoslavia stem from 1948 when Tito was expelled from the Cominform. Until then Yugoslavia had virtual tutelage over its smaller neighbor. Through a series of treaties which it later denounced, Albania was well-nigh reduced to the status of a federal unit of Yugoslavia. More importantly, the Albanian Labor (Communist) Party which was organized only during World War II was directly subordinated to its "parent" organization, the Yugoslav Communist Party. After 1948 that control passed directly into the hands of the Russians. The Albanian Communists never acquired separate membership in the Cominform. In 1955, however, Albania was admitted to the Warsaw Pact.

The break with Tito led to extensive purging in the Albanian Communist Party which took the toll of many lives, including that of Koci Xoxe, one of the leading figures in the party. Since Xoxe's execution in 1949, Enver Hoxha, first secretary of the Party and Mehmet Shehu, appointed prime minister in 1953, have been the most powerful local personalities. They have succeeded in maintaining the stability of the communist regime.

Bulgaria

Of all the Slavic nations of Eastern Europe, the Bulgarians are the most closely related to the Russians by virtue of national origin, language, and a common religion. Moreover, the history of Bulgaria has been intimately linked with Russia since the nineteenth century when Russia emerged as the champion of Bulgarian independence. The reservoir of good will toward Russia was not entirely dissipated by the advent of Soviet rule there. Bulgarians continued to regard Russia as a

friendly, Slavic power rather than an exploiting, inimical communist state. The people's friendship for Russia as a potential protector of Bulgarian interests was enhanced by internal political conditions. In sharp contrast with popular sentiment, the royal house of Bulgaria showed a marked pro-German orientation, committing the country to assisting the German war effort in both World Wars. The political life of Bulgaria in the inter-war period was largely under the sway of a small urban minority, bolstered by the military who in 1923 ousted from office a peasant government which had won widespread acclaim in 1919.

Given the wide gulf between rulers and ruled, it was not particularly difficult to organize a broad anti-government coalition during the war. Going under the name of Fatherland Front, it included the peasant and Communist Parties as well as Social Democrats and the so-called Zveno group, which consisted primarily of disgruntled army officers. As the military fortunes of the Axis powers faded and the Bulgarian royal house was in decline, the four-party coalition staged a brief uprising in September, 1944, and swept the government from office. The Communists then immediately turned on their close collaborators to whittle down their strength and set the stage for a one party dictatorship. The peasant party with its good record stood out as a prime target. Representing the interests of the countryside, the party had a natural appeal to the majority of the people, about 80% of whom derived their livelihood from agriculture. The Communists themselves, however, also enjoyed a measure of public support. Even after World War I, the Communists were second in popularity to the peasant party.

Under the leadership of the veteran Communist Georgi Dimitrov, the country became a model satellite. After Dimitrov's death in 1948, his brother-in-law, Vulko Chervenkov, took over the reins of power. He dealt swiftly with opponents within the Communist Party itself, executing Traicho Kostov, an old-time Communist with reported nationalist leanings, and demoting Anton Yugov, the former Minister of Interior. Under Chervenkov, Bulgarian foreign policy was marked, among other things, by serious clashes with Greece, which led to the suspension of diplomatic relations.

Similarly, in the face of attacks on its Minister, Donald Heath, the United States withdrew its diplomatic representatives from Bulgaria in 1950. Relations remain suspended despite three attempts in recent years by the Bulgarian government to exchange representatives.

Bulgaria also played an important role in the campaign against Yugoslavia. Questions of a possible federation between the two countries were discussed prior to 1948 and while the idea had supporters as well as opponents in both countries, it was sternly denounced as a Titoist attempt at subjugating Bulgaria after 1948. Relations between the two countries improved somewhat after 1953, but they remain tense. Attacks against Yugoslavia delivered at the Communist Party Congress in Sofia in June, 1958, helped to fan the flames of discontent and enmity once more.

Chervenkov's personal rule was similar in character to Stalin's and closely resembled Rakosi's personal dictatorship in Hungary. It lasted with only minor modifications until 1956. After Stalin's death, when all Communist parties split the post of first secretary and prime minister between two separate individuals, Chervenkov retained the premiership and Todor Zhivkov became party secretary. In 1956, following the denunciation of Stalin, Chervenkov was also severely criticized as a practitioner of the "cult of personality." He yielded the premiership to Anton Yugov, his one-time opponent. But Chervenkov was not completely eliminated from the Party leadership and in the spring of 1958 his star again began to rise. The Party congress held in June confirmed him as a member of the Politbureau and as Minister of Culture he was responsible for containing whatever signs of rebellion Bulgaria's intellectuals might show.

Despite a grim record of rule, the Communist Party does not seem to be faced with massive pent up hatred on the part of the people as in Hungary. The Party itself, despite a history of internal conflicts, shows no signs of dissension serious enough to threaten its unity and undermine its capacity to govern. The Bulgarian economy, still chiefly based on agricultural production, has experienced less dislocation than the economies of almost all other satellite states. Given the predominantly agricultural character of the country, it has made the greatest strides toward completing a program of land collectivization. More than two-thirds of Bulgaria's arable land are held by collective farms. This is the largest percentage by a wide margin among Russia's East European satellites.

Czechoslovakia

Czechoslovakia occupies a pivotal position in the Soviet orbit. It is a heavily industrialized country and as such is used as an important workshop of the area. It supplies a substantial portion of the capital goods needed for industrial expansion

by other, more backward People's Democracies. It also makes a significant contribution to the Soviet economy. Czechoslovakia's political importance to the U.S.S.R. is largely a function of its economic potential. This is not to say that the Communists did not consider Czechoslovakia, the most westernized of the smaller East European states, possessing the richest tradition of democratic government, as a coveted prize. Militarily, Bohemia and Moravia, the two western provinces of the country, have long been regarded as invaluable operational bases in Central Europe.

Czechoslovakia is for the moment one of the more docile of the satellite states. Its domestic political life has registered few of the disturbances that have marked developments in Poland and Hungary. The Communist Party appears firmly in control of the situation. Under the surface not all is as serene as the Party leadership would have it, but Communist authority is not substantially challenged from any quarter.

The structure of the country's government still distinguishes it from the other People's Democracies. For unexplained reasons Czechoslovakia has preserved the institution of the presidency and the incumbent is actually endowed with political power. For the rest, the political structure conforms closely to the pattern prevailing throughout Eastern Europe.

A Congress of the Communist Party—the eleventh since its foundation in 1921—held in June, 1958, confirmed leading personalities in their positions and approved policies as well as progress being made toward the achievement of "socialism." Top men in the Communist hierarchy are Antonín Novotný, who combines his post of first secretary of the party with the Presidency of the Republic.

Among shortcomings noted at the Congress was apathy by the population toward active participation in party affairs. The age and social composition of the party has been deteriorating, showing a lack of interest among the youth and the workers in identifying themselves with communism.

A vexing issue is the relation between Czechs and Slovaks as partners in the state. The problem is not new. It was one of the contributing causes to the downfall of the first Czechoslovak Republic in 1939. However, the Communists set out to obliterate the sources of friction. They claimed to favor wide measure of self-determination for the Slovaks and invested heavily in that province to reduce the inequalities between its industrial development and that of the Czech lands. Slovakia, indeed, has a special provincial

executive, the Board of Commissioners, and a provincial assembly, the National Council. They are not altogether paper organizations. But the supremacy of the central government in Prague is everywhere manifest and traces of Slovak "separatist" aspirations are abundantly evident. Substantial differences between the economic levels of Slovakia and the Czech lands persist. Finally, profoundly divergent attitudes toward religion also serve as a source of conflict. The Slovaks are still preponderantly an agricultural people with strong attachments to the Catholic Church to whom about two-thirds of the population belong. The Czechs, of course, take their religion much more lightly. While the majority are Catholics, they abide by a strong national tradition of Protestantism in which political, social, and religious elements intermingle.

In ideological matters and foreign affairs, the Czechoslovak Communists have faithfully toed the Moscow line. They are among the more vehement critics of revisionism—signs of which they have detected in their own midst—and have lashed out vigorously against both Imre Nagy and Tito's Yugoslav regime. The subservience of the Czechoslovak Communists to Moscow and the passivity of the people are to some extent explained by a lack of realistic alternative in the country's foreign policy orientation. The Czechs, in particular, still nurture profound distrust of the West for having let them down in 1938 at Munich, and they fear the Germans, with whom they have a long frontier. Unlikely as it may be, the possibility of a return of some or all of the roughly 2,500,000 Germans expelled from the Sudeten areas after World War II understandably fills the Czechs with uneasiness.

The economic situation of Czechoslovakia surpasses that of any other satellite. Two reasons may account for this. The country started its program of economic expansion in 1949 with a much broader industrial base than the other satellites, except East Germany. It also made fewer mistakes in economic planning.

At present, Czechoslovakia stands second to East Germany in the volume of foreign trade with the Soviet Union. It is a chief supplier of industrial and consumer goods of the most varied types including steel, iron and engineering products, shoes, textiles, and housewares, to the Communist bloc and to underdeveloped areas. It is also a major source of arms supply. In the process of industrial expansion, Czechoslovakia as some of the other satellites became an importer of food stuffs to the tune of close to 1,000,000 tons a year. It is also dependent on Soviet

raw materials to keep its industries going. But real wages never decreased as steeply as in Poland and Hungary and the standard of living remained higher than anywhere else in the Communist orbit.

The workers have been remarkably successful in extracting economic concessions from the authorities in terms of wages and fringe benefits. They have also shown a strong tendency to drift into administrative positions as against jobs at the bench. Despite these "unhealthy manifestations," which invite continuous retort from the authorities, worker productivity is relatively high, and the economy in general is functioning at a high level of efficiency.

The economic program mapped out by the 1958 Communist Congress envisages no let-up in the pace and no change in the direction of further growth. Whatever it means, the Czechs have the attainment of "socialism" in sight and have set their aim at being the first satellite to achieve this goal. Among other things, their blueprint calls for continued collectivization of agriculture. They now stand second only to Bulgaria in the percentage of arable land and farm families to be found in collectives. In the spring of 1958 there were 11,378 collective farms with a total arable area of 3,461,548 hectares of land, and a population of 436,750 peasant households. An important feature of the current economic drive is the completion of a social revolution of major proportions. Remnants of the middle class who survived in sundry managerial and office positions are systematically moved to production jobs. Their place is taken by workers promoted from the bench.

The Communist conquest of Czechoslovakia was essentially a graduated process extending from May, 1945, when the country was liberated from the Nazis to February, 1948, when the Communists seized power in a deftly executed coup d'état. The fall of Czechoslovakia signalled the ringing down of the Iron Curtain over the Soviet-dominated portion of Europe with a tone of finality.

Unlike other nations in which anti-Russian feelings were either based on historical experience (Poland) or on still-retained unpleasant memories of an earlier encounter with bolshevism (Hungary), the socially progressive Czechs had no real fear of Soviet communism which they thought was inimical only to reactionary nations, classes, or individuals. This attitude reflected favorably on the Communist Party. The Communists who were allowed to function in the open during the inter-war period always attracted a sizable number of voters. They returned to Czechoslovakia after six years in exile

with enhanced prestige. Soft pedaling revolutionary aims and pursuing a strongly nationalist policy built around the expulsion of the German minority, they appealed to even larger number of voters. In elections in May, 1946, they won a clear plurality of 38% of the votes, the highest percentage ever obtained by them in free elections anywhere. Although a five-party coalition governed the country, the Communists exercised preponderant influence in it. As time went by their popularity waned. Simultaneously Soviet designs on completing the capture of Eastern Europe were accelerated. Under the circumstances, the Czechoslovak Communists exploiting the numerous positions of power they held throughout the government, the police, and other important institutions such as the trade unions, maneuvered their opponents into a hopeless situation and capped this maneuver by a successful coup d'etat.

Days after the coup, Jan Masaryk, the government's Foreign Minister, son of the illustrious founder and first president of Czechoslovakia, Thomas G. Masaryk, committed suicide. President Eduard Benes resigned in June, 1948, rather than ratify the new Communist-inspired constitution. He, too, died shortly thereafter. The Communists, in turn, moved relentlessly to consolidate their power and reshape the country's political and economic structure in the image of the Soviet.

East Germany

In many respects, East Germany occupies the most interesting and most complex position in satellite Europe. Its importance derives from several sources. It is the farthest point of penetration of Soviet military and political influence in Europe. As such, it is both an indispensable springboard for further Communist expansion in Europe and a first line of defense. It has surpassing significance in affecting an overall settlement for Germany, which remains the central problem of international concern in Europe. It is an invaluable asset to the Soviet bloc by virtue of its advanced industrial development even though it is lacking in a number of vital raw materials.

Officially designated the German Democratic Republic, it was declared a "country" only in October, 1949, following the adoption of a constitution in the previous May. Its boundaries coincide with the zone of occupation in Germany conferred upon the Soviet Union at the end of World War II. To this day, the Western powers, including the Federal Republic of Germany, also a postwar creation made up of the occupation zones of France, Great Britain,

and the United States, refuse to acknowledge the legal existence of the German Democratic Republic as a state or a separate sovereign entity. They regard it merely as a disguised Soviet dependency which is directly administered by the occupying authority. The Soviet Union, for its part, is steadily building up the German Democratic Republic as a full-fledged people's republic indistinguishable from any other Communist-run state in Eastern Europe.

Similarly, the Soviet government seeks to bolster the prestige of the East German regime. Full sovereignty, whatever that means, was bestowed on it in September, 1957, and the Soviet Union is represented through an ambassador. The presence of Soviet troops is regulated by a status of forces agreement akin to that signed with Hungary and Rumania. To underscore Soviet interest in East Germany, Khrushchev visited there in the summer of 1957 and again in July, 1958, when he attended the Congress of the ruling Socialist Unity Party.

The Issue of Unification

In line with these efforts the Soviet government seeks to force some form of recognition of the East German authorities by the West. The Soviet government for years now has referred all discussions of the question of German unification to the East and West German governments as the only qualified parties to deal with this matter.

So long as German unification is a major European issue, and it is likely to remain that for some time to come, East Germany is bound to be a pawn in an international power game. It is inconceivable that East Germany should be allowed to develop an independent foreign policy. But then, none of the other satellites can pursue an independent line in foreign affairs, either. One of the differences between them and East Germany is the latter's broad exposure to Western influence through the fluid frontier it has with the Federal Republic, not in any territorial sense but in terms of the heavy two-way traffic in temporary visitors. In addition, of course, there is a steady flow of escapees from the East at the rate of about 5,000 a week. It is a good demonstration of the political preferences of the people living under communist rule.

The fluidity of the frontier and the intimacy of person to person contacts place a high premium on vigilance against the possible defection of the entire "country" from the communist orbit. One form of precaution is the presence of Soviet troops. Though their stationing is formally regarded as "temporary," they fulfill an important function in keeping the communist administration in power. Just how vital Soviet troops are to this end was

dramatically demonstrated in June, 1953, when Soviet motorized units had to be engaged to quell a workers' riot in East Berlin which threatened to get out of hand because the East German police and defense detachments could or would not cope with it.

The Russians have shown no inclination to give up East Germany or to distinguish it in any way from any other Communist-held area. East Germany is as closely integrated with the socialist bloc as any other people's democracy. It is a member of the Warsaw Pact and participates in the Council for Mutual Economic Aid. It has a series of bilateral trade agreements with other Communist-ruled states and is closely tied to the Soviet economy. In money volume it has the largest trade turnover with the Soviet Union of all the East European states. A comprehensive seven-year plan for closer coordination between the Soviet and East German economies has been worked on.

The plan seeks sizable expansion of the East German chemical industry. In the process, East Germany will become appreciably more dependent on the Soviet Union. By 1965, the final target date of current long range coordinated planning, the German Democratic Republic will import four times as much oil than in 1957 (4.8 million tons), four times as much pig iron (1.6 million tons), five times as much aluminum (80,000 tons), three times as much copper (43,000 tons), and two and a half times as much rolled steel (1.6 million tons). In return, East Germany will deliver more products of the machine building and chemical industry. Interestingly, until 1962, Soviet deliveries are expected to exceed East German deliveries by a wide margin.

Communist Policies

The purpose of communist policies in East Germany appears to be to enlarge the gulf with the Federal Republic rather than to reduce it, and to tie the area as closely to the communist bloc as possible. The hope might well be that in this manner some of the disadvantages of East Germany against West Germany would be offset. In the event of unification, two truly distinct social and political units would have to reconcile their differences. If the changes in East Germany were profound enough—that is, if they were entrenched in the social and economic fabric of the society and were not limited to skin-deep control by a Communist government—the East German regime would have a far better opportunity at asserting itself than under any other condition. The communist conception might well envisage a federal solution for Germany, with the Eastern unit, though smaller, playing the role of the tail wagging the dog.

Just how firmly the communist system is ensconced in East Germany cannot be determined with any degree of accuracy. The fact that there have been few signs of profound unrest since the riots of 1953 means nothing. Having been crushed once without the slightest hint of Western assistance to them and having seen the Hungarians brutally beaten down, the East Germans are unlikely to display provocative attitudes.

Meanwhile, the East German economy which few considered viable, has shown steady if slow improvement. According to official sources, East Germany is the second industrial power in the communist orbit and the fifth in Europe, excluding Russia. An economic program approved in January, 1958, calls for a 25% rise in industrial production in the next three years. In the late spring, the government finally abolished food rationing, although prices remain high and there is a scarcity of consumer items.

Hungary

Hungary continues to exist in the shadow of its short-lived revolution of October, 1956, which swept the local Communist Party out of power and was put down only by massive intervention by Soviet troops. The execution of Imre Nagy and several of his associates in June 1958, was primarily meant for foreign consumption. Coming as it did in the midst of acrimonious debate on the issues of unity and diversity in the "socialist camp," it was aimed primarily at Tito. But it also served warning to Communists everywhere of the consequences of ideological deviation which threatens the theoretical precepts and undermines the practical achievements of communism. In its Hungarian setting, the trial was the latest in a long series of trials of Communists who abetted the revolution and non-Communists who participated in it. It served as a grim reminder of the determination of the shaky regime of party boss Janos Kadar and Premier Ferencs Muennich to settle scores with all those who collaborated in overthrowing the "people's democratic order."

Since Nov. 4, 1956, when it was installed in power by Soviet bayonets, the Kadar-Muennich regime has fought viciously to erase all traces of the revolution, restore political controls and rehabilitate the economy which sustained fearful losses during and after the revolution when workers refused to go back to their jobs.

One of the first tasks to which the government directed its attention was to break the power of the workers' councils

These were perhaps the most original and most significant institutions to which the revolution gave rise. For weeks after the revolution was put down, they were the only organs of power which commanded any respect from the people and they were, of course, bitterly opposed to the communist regime. By subterfuge and guile, promises and perfidy, the government managed to arrest the leaders of the Budapest Central Workers' Council. They were subsequently executed. Through martial law and additional threats of reprisals a general strike was eventually broken, the workers' councils were dissolved, and the formal authority of Communist-dominated trade unions was restored.

Having dealt with its most formidable opponent, the government turned its attention to Hungary's intellectuals, who were instrumental in fomenting discontent. The Writers' Association was dissolved and a substantial number of writers and journalists were arrested. Some of the more prominent ones (e.g. Tibor Dery, Zoltan Zelk, Gyula Hay, and others) were tried and sentenced to long prison terms. Meantime the Communist Party itself, which completely disintegrated during the revolution, slowly rebuilt its shattered organization.

Functioning under a new name, the Hungarian Socialist Workers' Party, it held congress in the summer of 1957. At that time it claimed to have about 350,000 members. Its position in the country, however, remained uncertain. Without the support of Soviet troops, whose numbers were variously estimated at 80,000 to 100,000, the Hungarian Communists could not maintain themselves in power as even Khrushchev found out when he toured the country in the spring of 1958.

But the presence of Russian troops assures tranquility. The chance of significant disturbances seems remote. Economically Hungary is at least a temporary liability to the Soviet bloc. The substantial losses in production—estimated at between 10 and 20 billion forints—could not be made up without loans and increased imports of all types of goods, including much food from the Soviet Union and other communist-ruled states. At that the economy has staged a remarkable comeback. By 1958 few of the economic effects of the revolution were still in evidence. Production was reported to have been restored to the pre-revolutionary level.

Try as they would, however, the Communists have been unable to erase the spiritual legacy of the revolution which represented a rare display of spontaneous outburst of popular indignation, joined in by a large number of disillusioned Communists. Far from being a "counter-revo-

lutionary" rising engineered by adherents of the pre-war system of semi-feudal social organization and obscurantist politics, it was mainly the work of young people. Many of them were brought up entirely in communist schools and grew contemptuous of the conditions of life forced upon them. In the time-honored traditions of oppressed people, the revolution was an anguished outcry for national self-determination. Its primary aim was to get Soviet troops out of the country and assure Hungarian independence by neutralizing the country, if necessary, on the pattern of Austria. In domestic matters the people wanted a democratic political order to replace the one party dictatorship with its many terroristic abuses.

Communism came to Hungary—as it did to all other countries in Eastern Europe—at Soviet gunpoint.

In the spring of 1953, when Stalin died, the political and economic situation was recognized to be so bad as to call for drastic remedies. Thus on the initiative of the new Soviet leadership, Hungary embarked on a program of moderate policies, known as the "new course." Its champion was Imre Nagy, who became prime minister in June, 1953, while Matyas Rakosi retained the post of first secretary of the Party.

The "new course" raised hopes of a better future. It eased the economic burdens of the population; farmers were even permitted to leave collectives. It also brought alleviation in the police terror. But the Party leadership with Rakosi, Erno Gero, and Mihaly Farkas at its head did not approve of the change in "course" and worked to undermine Nagy's policies. Seizing an opportunity provided by shifts in command in the Soviet Union, it ousted Nagy from office and called a halt to his program in April, 1955. This led to increased bitterness among the people and spurred opposition even within the Communist Party. Communist writers and intellectuals working through the Writers' Association and a newly organized debating society, the Petöfi Circle, so named for Hungary's famous revolutionary poet, grew ever more critical of the country's political leadership. They demanded reforms and a return of Imre Nagy to the premiership.

Through 1956 the intellectual ferment spread to the universities and beyond—to the workers and even the Party functionaries. When, coincidentally with denunciation of Stalin, it was revealed that the Communist Rajk and his fellow accomplices had been executed on trumped-up charges, indignation within the Party could no longer be contained. Rakosi was

dismissed, but his close associates retained control of the Party and fought vicious rear guard action.

Fired by the example of Poland's bloodless "October," Hungarian Communists who were seeking reforms called a sympathy demonstration. Their hope was that it would force the regime to make the desired concessions and return Nagy to government office. But the demonstration got out of hand and shooting started. The population, once aroused, could not be held back. Under the influence of patriotic slogans, of memories of past revolutionary greatness, of the intense nationalism which always distinguished Hungary, and of the pent-up frustrations of the past decade, which led to "hatred" of communism, Communists, and Soviet Russia, the masses took command of the situation. The Hungarian Workers' Party—helpless in the face of the enraged mob—disintegrated. All that remained of it was a six-member "caretaker" executive and Imre Nagy, who though a Communist, had become a symbol of opposition to all bad things associated with communist rule. Carried further than he wanted to go, he capitulated to the demands of the revolution and promised free elections and a multi-party system. He also renounced Hungary's participation in the Warsaw Pact and asked for neutral status on the Austrian model.

Although defeated at the hands of the Russians, the revolution caused incalculable damage to the communist cause. For one thing it precipitated a revulsion of feeling against Soviet intervention throughout the world and led to the disillusionment of many a Communist or Communist sympathizer. For another thing the revolution effectively smashed the myth of invincibility of totalitarian systems from within. It demonstrated the brittleness of the totalitarian control mechanism and the elemental strength of an aroused people.

As a consequence of the revolution, Hungary sustained fearful losses in manpower. Over 200,000 persons, most of them young, fled to escape reprisals against them. Additional thousands were deported to the Soviet Union. The internment camps of the Stalin era which were closed down during Imre Nagy's premiership have reopened. The number of people executed since 1956 has been estimated as high as 2,500.

Attempts by the United Nations to send on the spot observers to report on conditions have been steadfastly turned down by the Hungarian authorities. Similarly, a number of resolutions adopted by the United Nations General Assembly, which concerned itself with the case in a special

session in 1956 and again at its regular session in 1957, have been rejected by Hungary and by the Soviet Union on grounds that they constitute "interference in the domestic affairs" of Hungary. The resolutions have condemned Soviet intervention and called for the withdrawal of Soviet troops.

A United Nations Special Committee on the Problem of Hungary, established on Jan. 10, 1957, was charged with the duty of providing "the fullest and best available information regarding the situation created by the intervention of the Union of Soviet Socialist Republics, through its use of armed force and other means, in the internal affairs of Hungary, as well as regarding developments relating to the recommendations of the Assembly on this subject." The Committee issued a long detailed report on its findings, based on interrogations of refugees and study of the documentary record. The report goes far toward authenticating the genuine popular character of the uprising and condemning the suppression of the revolution by armed force. The special representative of the General Assembly, Prince Wan of Thailand, however, had no more success in contacting the Hungarian authorities than the United Nations Secretary General, Dag Hammarskjöld, when he sought to visit that country immediately after the revolution.

Poland

Of all the "satellites" Poland is in the most precarious position. Since October, 1956, the country has been governed by a communist leadership whose chief, Wladyslaw Gomulka, emerged from a communist prison to seize control in the Polish United Workers Party (Communist). He rose to power in a spectacular bloodless coup, against the objections of the Soviet leadership and in defiance of the threat of Russian military intervention. He won the support of the Polish people because he stood for national self-determination, democratic political reforms, and the restoration of the health of the economy, allowing for an improvement in living standards and continued industrial growth.

Under Gomulka—at first—the Polish people got a taste of freedom unheard of in a police state. They were relieved of constant harassment by the secret police. They could speak their minds freely without undue fear of repercussions. Artists and writers extricated themselves from the fetters of "socialist realism" and used their creative talents as they saw fit. The Roman Catholic Church regained a significant measure of freedom in administering

the religious needs of the people. Religious instruction was reintroduced in schools on a regular basis. The most pressing grievances of the workers were met by adjustments in wage scales and work norms. Administrative changes were introduced to decentralize the management of the economy. Forcible collectivization of agricultural holdings was ended.

To be sure, Poland remained a dictatorship ruled by a single party. But it was a far more benevolent dictatorship than any communist-run country in memory. The Communist Party by no means controlled all facets of life. Even in politics a degree of democracy was allowed to creep back. Splinter parties, such as the United Peasant Party and the Democratic Party, which had existed as meaningless puppets of the regime, experienced genuine revival. The Peasant Party in particular was making headway in the countryside. In elections in January, 1957, voters had a limited choice between candidates. The National Assembly, a unicameral legislative body, once again became the scene of serious exposition of government policy and debate. If its performance fell far short of the standards expected in a democracy, it also ceased being a rubber stamp. The officially sponsored communist youth organization (ZMP) disintegrated and in its stead a number of youth groups sprang up including some affiliated with the Catholic Church. The Scout movement was also revived. (The Association of Democratic Youth, however, was dissolved in the spring of 1957.)

A Privileged Status

Bowing to the inevitable in 1956, the Soviet leaders never fully acquiesced in the privileged status of Poland. They openly criticized the "excessive" liberalism of Gomulka's government and subjected it to steady political pressure to conform more closely to the dictates of the Soviet Union, to abandon dangerous experimentation with freedom and to assume its place as a regular member of the "socialist bloc."

However, Gomulka's own utterances and the measures taken by his government gave ample proof of the difficulties under which he operated. For one thing, on June 28, 1958, he felt it expedient, after a silence of some days, to voice cautious approval of the execution of Imre Nagy and his associates. Though his approval was couched in far more moderate terms than those of other communist chiefs (he merely acknowledged the seriousness of Nagy's crimes), it represented a painful departure from the genuine compassion expressed for Hungary's plight in 1956. It was a definite concession on Gomulka's part to Soviet insistence on a show of solidarity in this matter.

For another thing, a variety of moves by the authorities indicated retrenchment from extreme positions of freedom won by the people in 1956. Writers and artists once again met with serious censorship problems. The most outspoken critics of communism were strongly censured, though not yet threatened with imprisonment. (Publication of "Po Prostu," the most rebellious newspaper speaking for the youth of the country, was suspended as early as October, 1957.) Workers' Councils which belonged to the more radical innovations introduced after the overturn of October, 1956, were shorn of their authority to participate in management. They were again subordinated to communist-controlled unions. Tension between the Church and the government rose to high pitch. The government accused the Catholic hierarchy of abusing its freedom for political agitation against the regime. The Church retaliated, charging the government with invasion of religious sanctuaries and excessive censorship.

With the retreat from "October" the Polish people found plenty to grumble about. But the fact that they could still grumble at the top of their voices clearly distinguished them from their less fortunate neighbors.

The precariousness of the Polish situation derives from many causes, some external and some internal to Poland. A decisive element is the country's unhappy geographic position between two predatory neighbors. After World War II, Poland's frontiers were shifted westward, exposing the country to the new threats of reprisal by a resurgent Germany which could not acquiesce in the permanent loss of a large portion of traditionally German soil or blackmail by the Russians in case the Poles failed to heed Soviet wishes. Despite repeated assurances from the East about the permanence of the new frontiers (no such commitments have been made by the West) Poles cannot help being apprehensive about them.

Because of its unhappy geographic position Poland has been the victim of dismemberment by its stronger neighbors on a number of occasions. The last time was in 1939 when Hitler and Stalin agreed on carving up the country. The repeated vicissitudes suffered by the people through generations have nurtured a romantic nationalism which has found expression in part in an exaggerated myth of national greatness and in part in sporadic hopeless outburst against the oppressors. Preoccupation with national security was the hallmark of the Polish Republic after the nation regained its independence in 1918. Excessive attention to foreign policy and national defense stifled the growth of

democratic institutions. Economic progress was impeded because a high percentage of national income had to be diverted to defense production.

The problems of the present government are not substantially different from those of the past. The people dislike or hate the Germans and Russians in about equal proportion. Their experiences with the Soviet Union are more recent, but the imprint of the wartime period when Hitler's hordes all but annihilated the Poles living under their control is still vivid. Matters were not improved by the summary removal of about 7,000,000 Germans from the territory awarded to Poland in 1945.

In its foreign relations the Polish government has little leeway in making independent decisions. A complicating factor is the presence of Soviet troops in East Germany. So long as they remain there, Poland will have to contend with Soviet requests to maintain supply lines and secure these with adequate troops. This means indefinite stationing of Soviet troops on Polish territory. They are a constant menace to the stability of a Polish government.

Loans from U.S.

The most Gomulka's regime has been able to accomplish in pursuing an independent foreign policy is to initiate negotiations with the United States for modest short-term loans. Two loans of \$95,000,000 and \$98,000,000, respectively, were arranged in 1957 and 1958.

The present political situation borders on the absurd. Gomulka is top man, although he has no position in the government. He is a Communist of strong, if in some respects unorthodox, convictions. He enjoys a large degree of popular support. The party through which he seeks to administer the country is in thorough disrepute and the vital organizational machine of the party is still shot through with functionaries who neither like Gomulka nor agree with his program. His chosen instrument is therefore unsuited to aid him in governing efficiently. He must seek the cooperation of elements outside the party. This he gets, in part, from the more rebellious intellectuals and in more significant measure from the Catholic Church.

Years of persecution, if anything, increased Church influence among the Polish people, 98% of whom are Catholics. The leading Catholic prelate, Stefan Cardinal Wyszyński, was released from confinement coincidentally with Gomulka's rise to power. He had the foresight of throwing his personal prestige behind the Communist leader in October, 1956, to prevent a national rising against the Soviet Union

which would have meant certain bloodbath for all. The Cardinal has played an important role in bolstering Gomulka against possible collapse.

The two men have a common objective in staving off massive Soviet intervention in Polish domestic affairs. The Cardinal knows that the alternative to Gomulka is not greater freedom but more thorough oppression.

Expansion and Consumer Needs

Casting a dark shadow over the political scene are past economic policies and the country's continuing economic commitments to the communist orbit.

For years before 1956, economic expansion was pushed at breakneck speed. It required investments of up to a third of the national income, an exceedingly high rate for any country. As a consequence consumer needs went unattended. Worker productivity was depressed in the absence of adequate material incentives. Allocation of investments caused one sided economic growth. Heavy industry, especially the manufacture of steel, received high priority while other branches, such as home construction and agriculture were starved of funds. Insufficient mechanical improvement in agriculture, coupled with forced collectivization, resulted in a drop of agricultural production. Poland became a heavy importer of foodstuffs, including staples such as wheat. Compulsory exports until 1953, especially of coal, Poland's chief marketable raw material, to Russia at 1/12 of world prices robbed the country of possibilities of profitable trade and accumulation of convertible currency.

Since 1956, the government has been trying to alleviate the worst of economic evils. Given extensive destruction suffered during the war, when literally entire cities were destroyed, shortages of convertible currency and capital reserves, and the commodity structure of Polish foreign trade, the problems of economic rehabilitation are staggering. Investments have been cut back to an annual rate of about 15% of national income. Non-productive, wasteful projects have been scrapped. Poland is no longer usuriously exploited in its export of coal and other items to Russia. The prospect of meeting consumer wants, however, are not bright. The government has been able to offer only modest wage increases. At the same time, it has had to fight off inflationary tendencies caused by unrelenting demands from the workers for higher money wages. In agriculture while collectivization has stopped and most of the existing collective farms were disbanded, production has not risen sufficiently to allow the government to abolish the system of compulsory deliveries. But prices paid to farmers have been raised. Poland is still an importer of sizable

quantities of foodstuffs and of raw material, especially iron ore, on which its overextended industries depend. A three-year economic agreement with the Soviet Union, signed in February, 1958, calls for a 35% increase in trade between the two countries. With no early prospect of substantial improvement, workers and peasants, whose morale is low anyhow, must be exhorted to produce more, better, and at less cost for the sake of an uncertain future.

Amid conflicting aims and pressures from above (Moscow) and below (the Polish people) Gomulka treads an uneasy path, seeking to preserve communist supremacy in Poland, maintain close ties with the "socialist bloc" while at the same time resisting undue encroachments on national sovereignty and upholding the legacy of his own victory in October, 1956.

Rumania

Rumania occupies a strategic position in the Soviet empire. It borders on Hungary, Yugoslavia, and Bulgaria and is a handy gateway for Russian penetration of the southeastern portion of the European continent. Rumania derives additional importance from controlling a long navigable stretch as well as the mouth of the Danube River, the most important international waterway connecting the Black Sea with Central Europe. Finally, its oil deposits (near Ploest) make it an important source of supply of a commodity which is otherwise not abundant in that part of the world.

Once, perhaps, the most solidly anti-communist of all East European countries, Rumania has shown few of the signs of the unrest which have plagued Poland and Hungary. Initially, the weakness of the Rumanian Communists (they counted fewer than 500 adherents in 1944) as contrasted with the popularity of young King Michael and the strength of the Rumanian army which preserved much of its striking power as a result of a fortunately timed withdrawal from the war as an ally of Germany and Italy, necessitated forceful Soviet diplomatic intervention in order to promote local communist interest and establish Communists in advantageous positions. But even then, Rumania knew how to ingratiate itself to its former enemies. By switching sides successfully in August, 1944, it vastly facilitated the task of the Soviet troops advancing on the southern flank of German-held positions in Eastern Europe. Probably as a reward for this service, the peace treaty with Rumania concluded in 1947 restored Rumanian sovereignty over Transylvania—a disputed territory inhabited by a large

Hungarian population. Transylvania was first awarded to Rumania after World War I, but in 1940 it was reappportioned between the contending states by Hitler.

The communist conquest of Rumania was completed by the end of 1947, after the trial and imprisonment of outstanding opposition leaders such as Juliu Maniu and Ion Mihalache and the unceremonious expulsion from the country of King Michael. Since then the Communist Party has kept itself in power with remarkably few disturbances. Its leadership has been far less riddled by purges and show trials than any other satellite Communist Party. Not even Ana Pauker, the chief victim of purges which took place in 1952, was brought to trial. The very thinness of available communist replacements may account for the absence of violent upheavals in the Party's leadership. By the same token the precariousness of the Communist Party's position may be responsible for its relatively cautious policies which, though by no means easy to bear, have fallen far short of the massive attempt at large scale social transformation undertaken in Hungary and have also lacked the vicious terroristic character of communist rule practiced in that neighboring country.

The docility of the people and the absence of pronounced revisionist tendencies in the Workers' Party have stood the Rumanians in good stead with the present Soviet leadership. Some sources of irritation as the loss to the Soviet Union of the long disputed region of Bessarabia, remain. Soviet troops continue to be stationed on Rumanian soil, although their withdrawal in the foreseeable future has been announced. On the whole, however, Rumanian-Soviet relations are on even keel. Concessions won from the Russians (presumably for good behavior) in the form of economic assistance have helped to alleviate a number of chronic economic difficulties. If Rumania is not a shining example of Communist achievements and displays far less militancy in imitating and supporting the Soviet Union than East Germany or Czechoslovakia, it is not a hotbed of troubles either. It is an island of relative tranquility in an otherwise agitated part of the Soviet orbit.

Yugoslavia

On June 29, 1948, the Cominform expelled Josef Tito and his Yugoslav Communist Party for insubordination to the dictates of Moscow. Ten years later, Marshal Tito, first secretary of the Yugoslav Communist League (a name adopted in 1952) and head of state of the Federal Republic of Yugoslavia, was once again

under heavy fire from the Soviet Union and other communist lands, notably China, for alleged ideological heresies which impaired the unity of the entire socialist camp.

The latest round of acerbity was touched off by Tito's last-minute withdrawal from promised attendance in November, 1957, at the fortieth anniversary celebration of the Russian revolution. He was the only leading Communist not present. On instructions from him, his deputies refused to affix their signatures to a declaration subscribed to by all other Communist and Workers Parties of the socialist bloc. The declaration reasserted the supremacy of the Soviet Union and spelled out the permissible limit of freedom in choosing divergent paths to socialism in a way that would badly cramp Tito's style. Adding insult to injury the Yugoslav League of Communists in March, 1958, issued a lengthy doctrinal statement in the form of a program for their forthcoming Congress. The program itself contained nothing new. It was a summary restatement of what the Yugoslavs have said about socialism during the past ten years. But it packed a wallop because it presented what might pass for a separate doctrine in comprehensive form for the first time.

State visits by Soviet President K. Y. Voroshilov in Belgrade and by Tito in Warsaw have been called off. The Soviet Union has unilaterally proposed postponing for five years economic credits promised to Yugoslavia, valued at \$285,000,000. But there has been as yet no hint of a concerted war of nerves, of psychological warfare on a grand scale, of military pressure and thorough economic blockade against Yugoslavia. All these were weapons used by Stalin.

For Yugoslavia to knuckle under to Soviet demands would mean the loss of sovereignty which it had so stubbornly defended. For the Soviet Union to acquiesce in Yugoslavia's persistent refusal to "join the bloc" would be—as it already is—a humiliating psychological setback.

After all, it was Khrushchev together with the now cashiered Bulganin who ate humble pie in extending the hand of friendship to Tito after Stalin died. They traveled to Belgrade in what was widely interpreted as a voyage of penance in May, 1955.

Khrushchev and Bulganin invited him to go half-way in meeting them and joining the Communist family.

The Soviet leaders had every reason to expect that sooner or later Tito would relent and reconciliation would be complete, closing an important gap in the Communist-controlled ring of states in Europe.

Tito's Wary Role

Yugoslavia has played a wary role. Its first reaction to the Hungarian revolution which deplored Moscow intervention, its manifest encouragement of the Polish experiment, and its no-nonsense policy on interference in its domestic affairs coupled with steadfast insistence that its own path to "socialism"—quite different from the Soviet approved version in several respects—was as good as any other, could not but provoke the Soviet leaders. So long as Tito developed a brand of home-grown communism which stood the test of time, he would serve as a beacon for disgruntled and dissatisfied Communists to follow. He would thus effectively threaten the hierarchical structure of the "socialist bloc" and challenge the primacy of the Soviet Union in it.

Yugoslavia's stance toward the West can best be described as one of grateful but aloof appreciation of services rendered. There is no doubt that Tito owes his survival to adequate and timely Western assistance. The United States alone provided him with a total of about \$1,500,000,000 in aid, about half of it economic and half military. Yugoslavia continues to receive modest United States aid, but as of the fall of 1957, Tito renounced further military assistance, less for want of need than as a result of peevishness at Congressional prying. Tito accepted Western help eagerly when the going was tough and made no bones about their life-saving value.

But in return for vital support from the West he has not made any formal commitments for diplomatic, economic, or military cooperation with the West. Expectations of the British Laborites that he might veer toward a democratic type of socialism have been bitterly disappointed. Tito has let it be known that he is a Communist, if a self-styled one, who holds no brief for certain aspects of Western foreign policy and for Western type of democracy. In international councils—especially at the United Nations—he has let the chips fall where they may, voting with or against the Soviet bloc as was warranted by the occasion. In a general East-West conflict in which Yugoslavia was not directly attacked there is no telling how his troops would be engaged.

Studied Neutrality

Under the circumstances the major positive foreign policy plank of Tito's government is studied neutrality. Tito is an ardent advocate of peace and an equally ardent opponent of military blocs. He perceives the best guarantee of stability for his regime in a world order that would make no demands on him to choose sides.

Titto has made contact with like-minded leaders of Arab and Asian countries. His wide ranging diplomatic journeys have taken him as far as India and Burma with a stopover at Egypt. He in turn has been visited by Nehru, Nasser, and other lesser potentates.

Titto was installed in full command of his country sooner than any other Communist in Eastern Europe. What is more important, he achieved his goals without Soviet assistance. The type of regime he established earned him no additional popularity. Between 1945 and 1948, when the break with the Cominform came, Yugoslavia was a model communist satellite. It made more rapid headway toward "communization" under a ruthless totalitarian leadership than any other East European country. The disagreements with Stalin concerned purely internal, communist matters. Stalin, ever distrustful of foreign Communists, wished to infiltrate Tito's Party and subordinate it as well as its policies to direct dictation from Moscow. Tito demurred. The discipline and loyalty of the party, the police, and the army made this possible. The absence of Soviet troops from Yugoslav soil helped. The existence of a territorial buffer between Yugoslavia and the Soviet Union in the form of other satellites was also useful.

Changes in National Program

As Yugoslavia became a beleaguered country, Tito's stock as a national leader again began to rise. He himself was forced to relent from the rigorous program of political and economic transformation which had been mapped out. Accommodation with the people was an indispensable prerequisite for the survival of his regime. Little by little, acting pragmatically rather than on dogmatic principle, the terms of adjustment were worked out. This is not to say that the peoples of Yugoslavia (for it is a multi-national country) won meaningful political freedom. The area of freedom never approximated what the Poles experienced after 1956. Yugoslavia is still a one-party state in which monopoly of power is exercised by a handful of men. The Communist League, the Federal executive and the legislative, as well as the administrations of the six Federal republics are run by an interlocking directorate consisting of no more than about a dozen persons. In elections to the Federal People's Assembly in the spring of 1958, 306 candidates, picked by the communist front "socialist alliance of the working people," competed for 301 seats. The choice before the voter was not exactly wide. Witness to the sensitivity of Tito's government to criticism is borne by the imprisonment of Milovan Djilas, a leading figure in Party councils before he became disillusioned

and denounced the practices of the "new class" of communist rulers. Recent trials of socialist professors also attest to the regime's determination not to brook political competition. But under the surface of official controls, traditional values and patterns of life remain largely undisturbed. The chief exception is the curtailment of the activities of the church. For the rest, the population is spared many of the "amenities" characteristic of totalitarian states, ranging from acute persecution by the police to incessant exposure to political indoctrination. Away from the centers of government, life goes on pretty much undisturbed.

It is in the economic realm that the government has made the most far reaching concessions. Right now, the general economic situation is more promising than it has been for a long time. After the break with the Cominform, Tito had to abandon his program of industrialization, which was overambitious. While it was under blockade, the Yugoslav economy could barely hold its own, even with Western aid. Living standards did not rise, but far-reaching adjustments in economic management took place. Their combined effect was to decentralize the economy, introduce an element of competitiveness into it and allow workers a measure of representation through workers' councils in the factories. Similarly, collectivization was suspended. Cooperative farming is still the goal of the authorities, but when that goal will be implemented no one knows and few people talk about it. With the alleviation in conditions after 1953 as a result of loans from communist countries and the restoration of normal trading with them, the Yugoslav economy received a much needed fillip. In the spring of 1958 in pre-election speeches and in his address to the Congress of the Communist League Tito was able to cite cheerful figures of economic growth covering 1953-1957. Postponement of the Soviet credit, which was originally arranged in 1956, will mean, among other things, abandonment of a huge aluminum processing plant, a pet project of the government. It is, however, not likely to have far reaching effects on the economy in general.

The overall internal situation thus appears stable. Tito was re-elected to the presidency of the Federal Executive Council in April, 1958, and was reappointed first secretary of the Communist League at its Congress in the same month. There is no question of his personal domination and of the security of his position. This, of course, does not mean that he and his regime enjoy the undivided support of the vast majority of the people. The people of Yugoslavia are no more inclined to support communism than any other na-

tion. There is also a continuing if negligible opposition to him within the Communist League. It consists of those who side with the Russians on the ideological questions under dispute. The revival of skirmishing led to the round-up of a hundred or more "Cominform sympathizers" while a smaller group escaped across the frontier to Albania. No violent change in conditions, however, is imminent either as a result of popular discontent or subversive machinations by opposition Communists. The communist leadership is tightly knit.

It has been the most stable of all Communist Parties, including the Soviet, for more than a decade.

So long as Tito remains at the helm, the direction of Yugoslavia's policies appears to be set. As matters stand, in the struggle with the Soviet Union, Tito is more than holding his own. If he rejoins the camp it will be on his terms. His country, an insignificant power in terms of population, size, and resources, is a factor to be reckoned with in satellite Europe.

UNITED KINGDOM

By

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INTERVENTION in Lebanon and Jordan in 1958 saw Britain and the United States marching in step. There were plenty in Britain to say that the demonstration of armed might showed a total misunderstanding of the situation and alienated Arabs who wanted no more than to run their own affairs profitably without commitment to East or West. But the majority were happy that the West was acting together in an area which contains oil reserves, whose free use is vital to Britain and Europe. The passions of Suez (1956) had died away. Then, many in the Conservative Party and in the general body of the people (who did not share the Labour Party's Confidence in the United Nations) felt betrayed by America. The Suez stroke was delivered in the confidence that once it was started, America would join in. She did not, and the bitterness was great.

But the cease-fire was owed more to the refusal of American support than to respect for United Nations resolutions or Russian threats. The sense of the need to walk in step with the United States is now very great in Britain. At Washington, in October, 1957, when the Suez hatchet was buried, Prime Minister Harold Macmillan signed the Declaration of Common Purpose with the United States. In the next year, at De Pauw University, he called that declaration "a blueprint for interdependence." This interdependence does not come easily to the British. The role of junior partner is hard to learn. Yet the lesson is driven home constantly by the facts of Russian power.

There are forces in Britain who would prefer to see the country leading a third and middle power of United Europe, a combination of highly developed and technically proficient nations who could deal

on equal terms both with the United States and with the U.S.S.R. These forces are few. In the first place, the old rivals in Europe are not united and find unity difficult to create. In the second, Britain's Commonwealth connections, and long traditions of sea power and foreign trade, have influenced her against European entanglements. It is de Gaulle's France, not Britain, which is tempted towards the leadership of an independent Europe, and the creation of a Middle Power.

Trouble in the Family

Although Britain's basic interests incline her persistently towards America, it is a love-hate relationship. There is a feeling of kinship, but family relationships are notoriously difficult. The common language is probably a more powerful bond than either side would think of acknowledging. But it is the regular failure of British and American interests and policies to coincide which places the greatest strain on an instinctive friendship. Middle Eastern oil means everything to Britain, less to America. The United States refusal to recognize Red China appears in Britain as little better than a breakdown in logic. Yet it is absolutely true to say that a British desertion of the American alliance is inconceivable. The alliance is a cornerstone of British policy. This is as axiomatic with Labour as it is with the Conservatives. Aneurin Bevan himself has said so.

But essential to Britain though the alliance is, it cannot rule out all differences. Even on the major fact of world policy, the cleft between Russia and the West, the lines are a little crossed. All parties in Britain, and Labour as strongly as any, are revolted by Soviet practice—

Hungary, 1956, is never going to be forgotten. But Marxist theory, or socialism, is less feared in Britain, and while leftist intellectuals will admit American tolerance and freedom, they find it hard to swallow that the leading Western nation should be whole-heartedly the home of private enterprise and capitalism. Doctrinaire socialism counts for less in Britain, even in the Labour Party, than much public discussion would suggest. Yet the respectability of socialist theory within its shores makes it easier for Britain as a whole to believe that one day, at the summit or by other means, some understanding with the U.S.S.R. is possible.

British interests are still worldwide and they do not everywhere coincide with America's. That was one thing proved by Suez. So Britain's defense, though seen as geared to America's under the North Atlantic Treaty Organization, is also still conceived independently. Bases like Cyprus, torn between Greek and Turk; Malta with its economic weakness; Aden, with its closing circle of Arab nationalism; Kenya, with responsibility from Central Africa to the Persian Gulf; Singapore and Hong Kong, all make their claims on slender resources. It is a system wide open to the drain of constant small troubles which once they arise are fanned by the scouts of world communism. It is the requirements of small police operations and old-fashioned petty wars across the globe that arm the critics of Britain's defense policy.

The Rising Cost of Duty

The nation is intensely conscious of two things—great and world-wide responsibilities and the increased expense of discharging them. It is a bit like some old nobleman still seeking to live in state in his castle, and discharge the duties of his position, with the rents of his estates no longer what they were. Britain has clung to the position of a Great Power and the weapons that go with it. An ultimate independence, proper to a Great Power, is accepted as necessary by all political parties. Even Aneurin Bevan, once sharply opposed to Britain's possession of the ultimate weapons, after he had been designated Labour's future Foreign Secretary, told the assembled Party in 1957 that Britain's representative, without the hydrogen bomb, would enter "naked" into the international council chamber.

The small but active Liberal Party and a vocal minority of the Labour Party wish to see unilateral renunciation of the hydrogen bomb. They are impressed by Bertrand Russell's prophecies of world sui-

cide, by the genetic dangers of radiation rising from bomb tests, and by the not unfounded fear that in any nuclear world war the United Kingdom, a small and crowded outpost, would be annihilated in the first hours. Behind these views is a judgment, widely held in the churches, that nuclear weapons are morally indefensible.

Strong though such feelings are, it can be said that the majority in Britain take some satisfaction in belonging to the atomic club. Back of this satisfaction lurks the sense that the United Kingdom is not as interdependent with the United States as politicians publicly announce. The possession of the bomb is a kind of insurance policy. The fact that the bomb is held by Britain and could in the last resort be independently loosed by her, provoking almost certainly a world war thereby, does supply an argument to America that closely agreed policies are desirable. No one can say what the future will be or the relative strengths of the Powers, and it is at least possible to imagine a situation in which America was unable or unwilling to intervene, when Britain had only her own deterrent resources between her and a fate similar to Hungary's. Quite apart from such gloomy forebodings, many of those most impressed by the moral case against the bomb are unable to square a British renunciation of it with the continuance of an alliance with an America whose world strength is founded largely on its possession.

There are, however, powerful arguments from the very fact of that alliance against British development of a nuclear arsenal. As in all other spheres, Britain's defense policy is constrained by limited finance. Defense absorbs about a tenth of the gross national product; it involves an expenditure of foreign exchange equal to the proceeds of all the aircraft, aero-engines, electrical machinery, and locomotives exported. A great part of the defense budget goes in the nuclear weapon program and its associated activities. Some of those most committed to the American alliance will say that its very existence makes such duplication of effort futile. The British are unlikely, this argument runs, ever to be engaged in a nuclear war except at America's side; in such an event America will possess all the weapons necessary—enough, in that sort of war, is enough—as President Eisenhower has remarked. It would be far wiser for Britain, and far more useful to the alliance, for her to concentrate on mobile conventional forces, which are what she really will need for the small, regular, and far-flung operations likely to fall to her lot.

Economy Program

The economizing five-year defense program launched in 1957 provides for ending the call-up to the services in 1960 and a smaller regular army of 165,000 men. Fears are that an army of that size will be insufficient for Britain's NATO obligations to maintain forces in Europe and also to protect her many interests overseas. In other words, these critics argue, Britain would be well-advised to make her economies in the nuclear program, trust to America for that form of defense, and use the funds released to expand her conventional forces. The debate in Britain on defense policy is still unresolved. There are critics of the present cut-down of conventional forces in the Government's own ranks, and while Labour remains officially committed to a nuclear effort, the party contains many who would seize the first opportunity for dropping it.

Any discussion of British defense policy drives home the fact that being a Great Power in these days is an expensive business. The recurrent inflationary crises merely illustrate the strain, in which defense is only one factor, the whole economy undergoes to uphold the panoply of greatness. It is doubtful whether many in Britain realize the strain. There is some sense, increased by the ill-luck of the Suez adventure, that the Great Power of the present is somewhat reduced from the Great Power of the past. But the deep popular support given to Anthony Eden showed the nation had still a taste for the bold deeds associated with sovereign independence.

There are no signs at all of general willingness to lay down freely any of the burdens of a state expecting to play a leading part in the world. It is no light matter, for instance, to stay the banker of the sterling area. That determination bulks large in every crisis of the pound. Some economists have argued that running the financial business of the sterling area is no more than an inherited habit without any current profitability. Yet the British instinct is still that it pays a trading nation to manage one of the great trading currencies, even if it is sometimes a burden.

Colonial Development

Likewise in private overseas investment. This currently represents over 1% of the national income, against the United States' less than one-quarter of 1%. The British Government has also made available to her dependencies £230 million up to 1960 under the Colonial Development Acts and £100 million under the Colonial Development Corporation. It occurs to

few to question the propriety of investing such large sums abroad when the home economy is tight. In fact the extreme Left, professedly most contemptuous of all Great Power trappings and pretensions, is highly critical of the Conservative Government for not spending more on colonial development. Thus ingrained are the habits of a great nation's lifetime. Nowadays too, of course, the whole cost of the Welfare State must be added to the bill. It is a lot to carry.

When Mr. Macmillan said in 1957 that most people "have never had it so good," he was telling the truth. The working people in Britain enjoy nearly full employment and most of them have larger pay packets than ever before. The gadgets of comfort—ice-boxes, washing machines, motor cars, television sets—are almost as common in working-class as they are in middle-class families. On top of what wages will buy, there lie all the benefits of the Welfare State, which guarantees a livable minimum from the cradle to the grave. If Britain, perhaps, provides more generous amounts of free education and health services than other advanced European countries, she offers less in social security. Nevertheless, with pensions for the retired, payments for the sick and unemployed, allowances for children, the pinch of want is never allowed to be felt. But the cost is enormous. For the benefits, every working man and woman pays weekly contributions. These cover, however, only a fraction of the cost. When the National Health Service started in 1948, the gross cost was estimated at £175 million. This year (1959), it will be £740 million, of which the Government has to find £553 million. By the end of the 1970's, it is calculated that the National Insurance Fund's expenditure will be just about twice its income, because of the great increase in the retired population on pension.

The maintenance of a high standard of living, and the welfare apparatus to prevent anyone from falling off that standard, hangs on one thing only—the successful export of manufactured goods. Let that fail and everything fails. France could lose all her foreign trade, pull in her belt, and live off the fat of her broad agricultural acres. But English acres are too few for that. "Export or die" has been the slogan since the war.

Napoleon was Right

Napoleon's sneer that the English were a nation of shopkeepers has been literally true only since World War II. There are no reserves of any size—nothing to tide over any severe recession. Everything that Britain stands for—her western defense

contribution, her leadership of the Commonwealth, her full employment and welfare services at home—hangs on day-to-day trade. She walks precariously along a tight-rope as she has never had to do to this extent before.

In 1913, 30% of the cost of her imports was covered by net income from foreign investments. In 1933, the figure was still 20%. But in 1953, after the wholesale selling and loss of foreign investments in the war, net income from investments abroad paid for 3% only of imports. It was 2.7% in 1957; the drain has not stopped. This fact explains the deadly seriousness with which Britain faces each new threat to the remaining investments in the Middle Eastern oil installations.

Britain has thrown herself heart and soul into the export business. She was enabled to get it going again after the war by large loans from the United States—a helping hand not forgotten and still a powerful element in the basic strength of the alliance. By 1956, she had doubled her pre-war volume of exports, and raised the proportion of engineering goods to over half the total. She is concentrating on the development of new products and new industries—electronics, petrochemicals, plastics, and synthetic fibers. Out of the 1,157 turbine-powered airliners on firm order throughout the world in July, 1958, the British share was 550 or 47.5%. It is the export of machines that pays best, the more scientifically advanced the better.

For this reason, Britain has taken up the cause of scientific education in a big way. Before the war, the drive towards educational reform was left very much in the hands of the left-wing parties. Education was then seen mainly as a civilizing influence, and the extension of its opportunities to the lower classes was viewed as a stage in their social emancipation. Since the war, education—for which read "scientific education"—has become more and more vocationally conceived. It would be extremely difficult to prove that the Conservatives are less ready to spend money on education today than the Labour Party. But one believes that many of them back a "big education" policy much as they backed a "big Navy" policy before World War I. Their instincts of course, are entirely sound. Britain's survival depends on the successful export of scientifically designed machines, and so very great sums have been spent on fostering scientific education.

Even British industry took a hand with the schools in 1955 and raised over £3 million for laboratories and equipment to increase the output by 50% of young scientists from the public schools (independent, mainly boarding and fee-paying—in

America they would be called private schools). Under the Education Act of 1944 the compulsory age of schooling was raised to 15 in 1947, but nothing stops a boy of talent from staying on at school, free, until 18 and then going on to college or university. The pre-war university population has been doubled, and growth continues. But it is not considered that the universities can produce enough scientists and engineers and so in 1957 the Conservative Government began a great expansion of the technical colleges, with the aim of pushing at least ten of them up to university level. M.I.T. and Caltech are magic words of inspiration in Britain at the moment.

Changes in Attitudes

This expansion of scientific education and training is one of the most significant trends inside Britain. Traditional British culture has always been based on the arts; the sciences were not regarded as a study suitable for gentlemen, except a few mad eccentrics, and engineers were classed scarcely higher than plumbers. All these attitudes have fallen to bits in the last decade. The arts are in full retreat, and over 60% of boys in the upper forms of English high schools are concentrating on mathematics, physics, and chemistry (roughly these subjects occupy two-thirds of the time-table from 15–18).

The highly trained products of scientific education are needed to man a big program of industrial development. Since 1955, an optimistic year, a considerable amount of capital investment has been taking place. New factories have sprung up for heavy electrical engineering and chemicals. Terylene, silicones, petrochemicals, titanium dioxide, and transistors are examples of new products. Transfer machines in engineering and electronically controlled machine-tools are among the new processes. Alongside this activity there are vast schemes for atomic power stations, of which four are building, modernizing the railways, and mines, raising a new crop of schools, hospitals, and houses. The activity after 1955 was immense; but the engine was beginning to race.

In 1957, the brakes had to be applied. The crisis was typical. Let it stand for several since the war. It was no worse than overcame the Labour Government in 1949, when the pound was devalued. In May, 1957, the gold and dollar reserves rose; they were as high as they had been for a year. They rose still higher in June. Then in July there was a slight fall, and as the month drew on it sharpened, and by August had become catastrophic. Rumors of another devaluation of the pound were rife: Europe had lost faith in sterling. All

at once the emergency brakes were applied. Credit was restricted and the bank rate raised to 7%, the highest it had been since 1921. The Government decreed a standstill on public and private investment. Power stations, railway modernization, and school building were all abruptly slowed down. The expansionist program ground to a stop. Twelve months later the wheels were turning again. The gold and dollar reserves were marvellously improved. In fact, by the end of 1958, to curb a small growth in unemployment, the Government were easing credit and encouraging people to have a spending spree financed by bank overdraft suddenly made ridiculously easy.

Thus 1957-58 illustrates perfectly the tightrope character of Britain's postwar economic life. Industrial development, leadership of the sterling area, and everything else hangs on a stable pound. Britain's expansionist policies, supported by and themselves encouraging a persistent, feverish inflation, lead regularly to domestic over-consumption. Imports are sucked in and overbalance exports, and another crisis of the pound is made.

Part of the drag of over-consumption springs inexorably from full employment, which has immensely strengthened the bargaining power of organized labor. The inflationary tendency of wages to rise faster than productivity has been a constant problem to post-war governments. Wage policies are forever being discussed but never applied. The right of trade unions to bargain freely for whatever wages they can get is today virtually a clause in Britain's unwritten constitution. The five-week strike of London's red buses in 1958, was a deliberate challenge by the Transport and General Workers' Union to a Government which was using its influence over a nationalized industry to restrain a general rise in wages. The strike was defeated, but at the Trade Union Congress held later in the year, the unions voted as firmly as ever against any policy of wage restraint. The virtual impossibility of curbing excessive wage demands in a fully employed, expansionist and free economy, accounts for a great part of the financial difficulties of successive British Governments.

Stimulus in Crises

The recurrent crises, the perpetual walking of the tightrope, is a stimulus. Inside itself, few nations can be more self-critical than the British. Government, industry, and press are all obsessed with keeping favorable the delicate balance between incomings and outgoings. That British industry should be inefficient here, or backward there, is immediately seized upon

and trumpeted up and down. At one moment the public is warned of the dangers of producing too few scientists. At the next, the argument has switched to the deficiencies of British salesmen. "How can we trade better?" The obsessive question is always to the fore. It induces an unwonted flexibility of approach.

This emphasis on efficient shopkeeping is something new in Britain. It has its bad effects as well as good. On the face of it, the country goes about its old mission in the world. Former colonies grow up and are released into independence—as were Malaya and Ghana in 1957. Homes and work are found for the refugees from oppression—as for the Hungarians in 1956. Education is improved and the universities expanded. But there is no doubt that the rigors of the tightrope-walk do have a spreading materialistic influence. The persistent inflation is demoralizing. Families who in the past had small reason to think of life in money terms are forced to do so now by high taxation and death duties on inherited wealth. Rising prices combined with the bargaining power conferred by full employment drive trade unions to press for sectional rises in wages, no matter what the harm to the national economy as a whole. The fascination of the monetary rat-race is strong. The pull of idealism is weaker. In Nottingham and London in 1958 there were racial riots—colored people mainly from the West Indies were attacked in the streets. Yet there is no deep-rooted feeling about color in Britain. Many saw in these demonstrations no more than a nasty outburst of brutality among young people, Teddy Boys, whose minds had been left empty of a cause and a hope by life in modern Britain and who for that reason sprang to indulge themselves, and release their frustrations, in a modern equivalent of bear-baiting.

Nations do not live by bread alone, and Britain's necessary concentration on the sheer business of earning her living may be leaving the imaginations of her young people unfired. In the 1930's, there seemed to be no question that British power, if rightly directed, could be a great influence for good in the world; Nazism and Fascism threatened from Germany, Italy, and Spain, and the young felt they knew what ought to be done. The plight of the unemployed and the poverty of lower-paid workers were a standing challenge to social reform. Since the war, Britain's power to lead in the world seems dwarfed beside the giant antagonism between the United States and the U.S.S.R., and the completion of a great program of social reform, which is almost more than Britain can anyway afford, leaves little

scope to the idealistic politician. These facts partly account for the political apathy which is marked among British students at present, and indeed in the population as a whole.

Conservative Strength

In the autumn of 1958, Conservative Governments had been in office since 1951. They had pursued unpopular economic policies and suffered the enormous reverse at Suez, as well as the perpetual irritations of Cyprus. Yet public opinion polls showed the Government still slightly ahead of Labour. This was extraordinary. It seemed to contradict the law of the pendulum in British politics. It certainly showed the current lack of attractiveness of the Labour Party.

Political dynamite has gone out of reform simply because so much reform has been accomplished. While Labour aims at re-nationalizing steel and road transport, it has cut down on tendencies to nationalize everything. There is a scheme for the Government buying shares in private companies, with the objective of extending public ownership minus public control. But nationalization is less popular than it was, even with Labour supporters. Trade unions have found nationalized boards, with Government backing, can be tougher than private boards. Ordinarily hopeful men and women do not see in nationalized industries those better relations between managers and men that the Socialist zealots promised. Labour is also trying to interest the electorate in a national super-annuation scheme with pensions graded according to past earnings, and in comprehensive high schools of American type in place of the existing selective secondary system.

By late 1958 anyhow, the electorate was not beginning to bite. In fact, neither of the main parties aroused much enthusiasm—which accounts for the revival of interest in the now diminutive Liberal Party. When Asquith's grandson, Mark Bonham Carter, won a Devon seat from

the Conservatives in March, 1958, it was the first Liberal gain in years. The draw of the Liberal Party, which must not be exaggerated, consists in its freedom from ties with the two main interests behind British politics. Many thinking voters deplore the identification of the Conservatives with the owning and managerial classes, with organized labor ganged up politically on the other side. But the Liberals with no strong interest backing—their moral advantage and political disadvantage—have a long way to go to the top; the British voting system is unkind to third parties.

With politicians seemingly barren of inspiration, and the corrupting inflation driving all classes to be on the make all the time, Britain might appear to be slipping into a materialistic morass with no higher ideal than to maintain the standard of living. Partly true though it is, such a judgment does not give the whole picture. There is a deep love of the country and its past. More lies behind the obsession with science, technology, and trade than the mere wish to make accounts balance and see that everyone gets their expected slice of the national cake. There is also the finer wish to maintain a nation, whose hills and fields, cricket and racing enter into a pattern of life which all classes understand and enjoy together. Few peoples are more class conscious, yet no community is less divided. A leading trade unionist will sit down at a City banquet beside a Lord Justice of Appeal and both find enough of English life in common to enjoy talk over the wine. The factions quarrel over the economic spoils, but faced with a threat from outside will agree that the domestic devil is infinitely to be preferred to foreign friend or foe.

Britain is no longer the arbiter of the world she used to be. But the knotty strength is still there, underrated as it always is outside. The truth is that Britain is a community closely woven over the years, where religious or political differences cause no more than ripples on the surface and the basic instinct is to stand together against all comers.

COMMONWEALTH OF NATIONS

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THE COMMONWEALTH OF NATIONS, also frequently called the *British Commonwealth* and occasionally the *British Commonwealth and Empire*, is an asso-

ciation of ten nations, all former colonies, or federations of colonies, of the United Kingdom of Great Britain and North Ireland. The ten associated nations are Can-

ada, New Zealand, Australia, the Union of South Africa, Malaya, Ceylon, India, Pakistan, Ghana, and the United Kingdom. It is usual to speak of the group as consisting of the United Kingdom and the overseas associates, but it must be kept in mind that the United Kingdom is nevertheless simply the first among equals. Future accessions to the association, like those of the past, are to be expected from among British colonies which may achieve autonomy, like Nigeria, the Federation of Central Africa, or the Federation of the West Indies.

While the Commonwealth is quite different and separate from the Empire, the Commonwealth grew out of the Empire and the Empire still survives. Hence the occasional use of the term, Commonwealth and Empire. The Empire today consists largely but not quite wholly of the colonial dependencies of the United Kingdom. Australia and New Zealand have dependencies which are properly to be called colonies. But it is the United Kingdom's colonies which are chiefly in question when the British Empire is mentioned.

As is well-known, by far the larger part of the British Empire today is in Africa, but British dependencies are also to be found in the Far East, the Mediterranean, the Caribbean, the Western Pacific, the Atlantic Ocean, and the Indian Ocean. Many of them will be mentioned in the articles on these portions of the world. In regard to the relation of the colonies to the Commonwealth, the point should be made that while the United Kingdom has unimpeded tutelage of the colonies, and by policy seeks to bring them forward to self-government and autonomy, she cannot confer Commonwealth membership upon them. They must, when finally autonomous, voluntarily ask for admission to the association; and acceptance depends upon the consent of the members of the Commonwealth.

The Commonwealth of Nations is, then, a peculiarly British political invention, a way of bringing into special association nations recognized in international law as independent countries. The association has the loosest of structures, based wholly upon conventions derived from past practices which are subject to change to accommodate to circumstances, rather than upon any written constitution. There is not and never has been a written constitution; and consequently there has also never been any centralizing organizational structure, like a special secretariat, for running the group. The relations of the members to one another and to the outside world are determined by the members individually and insofar as they share a common attitude or policy it finds expres-

sion only through voluntary consultation and cooperation.

A British Invention

The Commonwealth is, therefore, an association without a "common voice," a fact which contributes a great deal to making it a mysterious and elusive entity to the outside world. The integrative symbol of association is The Crown, the constitutional apex of the British system of government, or a legal concept to be distinguished from the king or queen who may temporarily be the wearer of the crown, or the occupant of the office of which the crown is the formal badge. All members of the Commonwealth, regardless of whether they are republics or monarchies, accept Queen Elizabeth II as "Head of the Commonwealth," and that phrase was in 1952 incorporated into her official title. Acknowledgment of Queen Elizabeth as Head of the Commonwealth does not, of course, give her any role whatever in the domestic affairs of the members—if they are monarchies they provide separately for this; and, indeed, the Queen has not any very visible role to play in conduct of Commonwealth relations. She is a symbol and a symbol only.

At the present time the United Kingdom, Canada, New Zealand, Australia, South Africa, Ceylon, Malaya and Ghana are monarchies, while India and Pakistan are republics. However, it can be stated that only the United Kingdom, Canada, New Zealand and Australia are firmly wedded to the monarchical principle. It can be anticipated that Ceylon will soon become a republic and sentiment for a republic is a force in South African politics. Malaya, which gained its freedom only on August 31, 1957, is likely to continue as a monarchy, with a royal personage, a rajah, as chief of state. Sentiment in Ghana is unclear. When Commonwealth members are monarchies they share a monarch in common. Elizabeth II is, then, Queen of the United Kingdom, of Canada, of Australia, and so on, and each has a separate legal definition of her Royal Style and Titles in relation to itself.

To perform the functions of the monarch in the countries where he or she is not normally in residence, a vice-regal personage called a Governor-General is appointed, with the advice and consent of the government concerned. A Governor-General can be either a citizen of the United Kingdom, a noble lord or a person without title, or a citizen of the recipient country. Thus, Australians have been Governors-General of Australia, South Africans of South Africa, and a Canadian of Canada. A Governor-General performs those functions which the Queen herself

performs in the United Kingdom, no more no less. When the Queen is visiting the country she performs the functions herself.

A Variety of Views

It might be argued that the countries which are monarchies are more intimately associated in the Commonwealth than those which are republics, but such a generalization would be subject to many qualifications and probably is meaningless. The views entertained of the Commonwealth vary a great deal from member to member and amongst equally significant citizens of each member. One can say, very roughly indeed, that there is an Australian view of the Commonwealth, an Indian view, and so on, but this obscures the significant differences between individual spokesmen, whether leaders of political parties, professors, or private citizens. Writers on the Commonwealth have a dangerous tendency to resemble the blind man and the elephant in the famous story. However, there is an elephant!

The forces which have created the contemporary Commonwealth have involved a large transfer of governmental authority from the Imperial center, the United Kingdom, to the associate members. The history of the Commonwealth is in large measure an account of such transfers and the reasons for them. Obviously, as the associates have waxed in power, the ties binding them to the United Kingdom have been weakened insofar as the ties were founded on authority. There has been a steady shift from the ties of legal authority to the ties of sentiment and as, in some cases, the latter ties are not entirely conspicuous, the question arises as to what holds the Commonwealth together. There is a body of thought, indeed, largely localized in Australia, New Zealand, and the United Kingdom, that feels rather strongly that the ties have become so tenuous, all things considered, that disintegration of the Commonwealth, or at least the departure of members from it, is an uncomfortably real possibility. At present, however, the balance of forces seems to favor the continuance as members of all the present associates. Historically only the Irish have left the Commonwealth after being in it and only the Burmese elected, on gaining autonomy, not to ask for membership.

Before World War II, it was possible to make some play with the ties of kinship as the cement of the Commonwealth, especially when referring to nations like Australia and New Zealand. This was a rather less forceful argument with regard to Canada and South Africa, with their articulate non-British peoples, respectively

the French-Canadians and the Boers. When the Asian colonies became autonomous and joined the Commonwealth the kinship argument looked rather ridiculous; and when Ghana joined it was obviously wholly irrelevant. Now it is necessary to argue that the Commonwealth is a valuable association because it transcends racial divisions, but this alleged virtue is under a severe test, as we shall see.

More emphasis has lately been given to another proposition: that the British have managed, as much by accident as design, to plant their version of democratic parliamentary government, and the accompanying institutions and practices, as well as the personal and social ideals which support them, throughout the imperial domain. Therefore we find that today the associated Commonwealth nations are all strongly committed to them. This close political similarity is clearly an integrative factor of great significance and its survival into the future is of central importance to the health of the Commonwealth. Any deviations from it will cause great alarm. Hence, for example, the anxiety about India's capacity to solve its social problems under democratic procedures.

No Centralized Machinery

The Commonwealth is sustained, perhaps, by force of common identification of purpose but it is maintained by consultation and cooperation. It has no centralizing machinery of a permanent and directive kind. All coercion is absent. There is nothing that must be done on peril of expulsion—there is no provision or precedent for expulsion, though the right of secession exists. Consultation and cooperation are all.

Consultation is continuous through intra-Commonwealth diplomatic channels. To facilitate maintenance of good relations, the associates exchange High Commissioners who, in status, are comparable to ambassadors. A High Commissioner is the representative of a government; he is not to be confused with a Governor-General, who represents the sovereign.

Of the occasional informal meetings for consultation, by far the most significant since 1939 has been the meetings of the Prime Ministers of the Commonwealth. By tradition no agenda is prepared for these conferences and in theory the posture of Commonwealth and world affairs determines what is discussed. Any Prime Minister may introduce any subject that concerns him. No votes are taken. The meetings are in the nature of "discussion groups" in which the Prime Minister's exchange views, but each must make his own version of the consensus and deter-

mine what use he will make of his conclusions when he gets home. He and, above all, his government are committed to nothing by attendance at the conference. A conference always ends with a formal communique, but it is rarely an illuminating document. The meetings receive little attention in the American press, and less comment. Few Americans know much about Commonwealth affairs.

Cabinet Ministers of lesser rank also hold meetings similarly managed to those of their chiefs, but rather sporadically. Finance ministers, foreign affairs ministers, ministers of trade, and so on meet to discuss common problems. Unlike the Prime Ministers, who can range where they will, the lesser Cabinet members stick close to their respective lasts, but occasionally a major policy is developed by them, as the Colombo Plan emerged from a meeting of finance ministers. An important meeting of this kind was held in Canada in September, 1958, to discuss intra- and extra-Commonwealth trade. The foreign ministers of Commonwealth countries occasionally meet for informal discussion at sessions of the United Nations; or comparable meetings may be held by the Permanent Representatives to the United Nations. Commonwealth High Commissioners are normally in touch with one another in the capitals at which they are posted and the High Commissioners in London regularly meet for discussions amongst themselves and with members of the United Kingdom cabinet. Commonwealth diplomatic representatives—ambassadors and 'ministers—consult with one another in foreign capitals, for example, Washington, D. C.

No Single Voice

In no instance do these consultations result in the Commonwealth speaking in a "single voice" on any subject whatever. The "single voice" theory of the Commonwealth is dead.

Cooperation here refers to joining together for the execution of specific tasks of importance to the association, the usual vehicle being the committee. Some committees deal with high policy questions, some do not, but all are concerned with matters that interest or involve more than a single associate. There is a Commonwealth Advisory Committee on Defense Science, a Commonwealth Scientific Conference, a series of Committees on transport and communications, an agricultural bureau, an Institute of Entomology, one in Mycology, one in Forestry, a Scientific Liaison Office. Some of these are of increasing, some of declining significance. Some are temporary arrangements, some are or have been important institutions of long history. A Commonwealth institution of

long history that now is fading away is the Judicial Committee of the Privy Council, established as the highest court of appeal in the Commonwealth and still recognized as such by a few associates. Eliminating appeals to the Privy Council and arranging that all law cases, including those involving the interpretation of a constitution, shall be settled within the associated country, is one way of emphasizing autonomy. Canada abolished appeals to the Privy Council in 1947, India in 1949, South Africa and Pakistan in 1950.

Unofficial Commonwealthwide organizations also play an important role in strengthening ties, especially insofar as they command membership from among opinion-makers. Conspicuous among these is the Royal Institute of International Affairs, with headquarters in London and parallel organizations in each associated country. In addition to sponsoring numerous publications on intra-Commonwealth and foreign affairs, this organization has since 1933 sponsored unofficial conferences on Commonwealth relations. The reports of these conferences shed very important light on what is "on the minds" of Commonwealth members, more light, really, than the communiqués issued by the Prime Ministers. The sixth conference of the series will be held in New Zealand early in 1959.

First Among Equals

It is hard in discussing the Commonwealth to avoid giving the impression that the United Kingdom is in some fashion, legal or extra-legal, open or concealed, the "boss" of the Commonwealth. In the theory of the Commonwealth this is not true. She is simply *primus inter pares*—first among equals. But as in all human situations where this Latin tag is invoked, the mere fact that her premier position is acknowledged gives her of necessity a position of prestige in Commonwealth councils. Moreover history fortifies her prestige, for she is the Mother Country to several members and former master of all. Nor is it possible easily to forget that until World War I the United Kingdom had sole direction of the foreign political relations of all the associates; that between the wars the associates made uneven progress in giving substance to their right to direct their own foreign policies; and that even today, when all members have their own policies, that the policy of the United Kingdom is the one to which they must, to an extent, adjust their own. However, the associates differ widely in the weight they are prepared to give United Kingdom policies.

Foreign students of the Commonwealth have long been plagued by the problem of how to formulate the differing attitudes

toward the United Kingdom of the associates, especially since in some of them the degree of deference has been defined in terms of greater or lesser "loyalty." There even used to be a parlor game of placing the associates in a list in the order of their presumed "loyalty." Australia and New Zealand invariably were placed at the top of the list, the Irish at the bottom. In the post-World War II Commonwealth, one must still reckon with this complex matter of "loyalty." It is an element that helps differentiate the views of Australia and India, say. Plainly the United Kingdom no longer "bosses" India and equally plainly she doesn't boss Australia, but she certainly commands far more deference from the Australians than from the Indians. This came out in the Suez crisis of 1956 when only Australia and New Zealand supported Anthony Eden's policy. India was outraged by it. At that time a dangerous split developed in the Commonwealth and it took all the resources of Canada's diplomatic capacity to resolve the conflict. Of course the Canadians had two objectives: to preserve the Commonwealth and to mend United Kingdom-United States relations. Suez demonstrated conclusively that the United Kingdom could no longer expect acceptance by the associates of policies disagreeable to them as independent nations. She learned that she must solicit support for her policies in consultation with her fellows; and she may not always get it; all she may get is acquiescence, as India acquiesces in her participation in NATO.

Relations with United Kingdom

There is, clearly enough, a contradiction of theory at the heart of the Commonwealth, in that relations between the individual associates and the United Kingdom bulk larger and have more importance than relations with any of the associates. Before World War II, a witty Canadian remarked that "We all constantly write home to Mother but we don't write often to one another." There is ample testimony that the volume of communication has risen all around since that time, but the correspondence with London is still the most voluminous. The United Kingdom is the only member to have a separate ministry for Commonwealth relations, headed by a Secretary of State who is a member of the cabinet. The rest normally handle Commonwealth relations through their ministries of External Affairs. There is a habit amongst the Commonwealth members of taking the norm of relations between the member and the United Kingdom as the desirable norm for all the associates. All the associates place great emphasis on their relations with the

United Kingdom and a lesser emphasis on their relations with the other associates. In fact, relations between two associates can be quite bad, while their relations with the United Kingdom continue good, and the good relations with the United Kingdom allow them to remain at ease in the Commonwealth. In the light of this, the Suez adventure was a blow at the heart of the Commonwealth for it opened up the prospect of strained relations between the United Kingdom and most of the Commonwealth associates.

The central position of the United Kingdom also comes out clearly when the material foundations of the Commonwealth are considered. They are to be sought in the fields of finance and trade (including shipping), and are primarily to be identified with that great subsystem of the global trade network, the Sterling Area, which is tied to the British pound. The financial and trading relations of the Commonwealth countries, except Canada, which is a "dollar country," are within the Sterling Area. The Sterling Area is, from the present point of view, a mixed group of national economies strongly linked to the United Kingdom economy. The position of the United Kingdom is central in the linked economies which make up the Commonwealth and that this is another factor in sustaining her position as unquestionably first among equals. However, it must not be overlooked that the economic factors do not *determine* Commonwealth relations. Canada, the senior overseas associate, has its primary trading and financial linkages with the dollar. The Commonwealth, in short, is not to be interpreted exclusively in material terms.

Traditionally Americans have assumed that "relations with the British" has meant simply relations with the United Kingdom. Even today there are Americans who still think of relations with the United Kingdom as covering pretty much all that is important in relations with the Commonwealth. This is, however, a dying error. Today American policy makers are aware that while the United Kingdom must loom large in their line of vision, they must also have policies for each of the Commonwealth associates and a sense of the impact of the policies on the other associates and the Commonwealth as a whole. The United States cannot join with Australia in SEATO without calculating the effect this will have on India; both must try to reckon out what effect India's hostility to SEATO will have on the Commonwealth as a whole. Similarly, the United States must calculate the effect of joining Canada and the United Kingdom in NATO will have on Australia and India. An American policy acceptable to one or two or three members of the Common-

wealth may be acutely alarming to another member. The United States must deal in both thought and action with each member individually while taking into account the probable effects on the other members.

The Need for Allies

The numerous ways in which the United States is linked with Commonwealth members makes it clear that the Commonwealth is not able to sustain its own defence. No member of the Commonwealth, acting alone, is believed to be capable of defending itself against a major enemy; and in two world wars it was demonstrated that the Commonwealth countries acting in concert were also not able, without outside support, to achieve the defeat of their enemies. Nevertheless several of the countries do have considerable war potential and one, the United Kingdom, remains, after the buffetings of recent times, still a Great Power of the second rank. Canada and Australia are regarded as Middle Powers of waxing strength. India's power, potentially immense, is today ambiguous because of the discrepancy between her tremendous manpower and the absence of commensurate industrial power to back it. The other Commonwealth countries have but limited defence potentials.

The question arises as to how to reckon the war potential of the Commonwealth as an association. Any increase in power in any of the members is important to all. The waxing industrial power of Canada or Australia is obviously a net gain to the association. Today the Commonwealth is organized for defense on the principle of maximum development for self-defence of each associate, plus a measure of cooperation and collaboration between Commonwealth countries, plus close collaboration with the United States. Only India stands aside. She is developing her own defensive power but she does not collaborate with her Commonwealth associates or with any outside power.

The pattern of collaboration between Commonwealth countries and the United States calls attention to the fact that the Commonwealth nations are found in many different regions, in all the major regions of the world: in Europe, Asia, Africa, the Pacific Basin, even Arctic and Antarctica. Since the decline of the Pax Britannica that reached around the globe, the Commonwealth nations have tried to bolster their positions regionally, normally reaching outside the association to do so. Canada is in the North American region and must work with the United States on a regional basis; Australia and New Zealand are in the Pacific Basin and work with the

United States there; and the United Kingdom is in the European region, hence her participation in NATO. The point of all this is that the Commonwealth is simply not put together so that it can solve its politico-defense policies by internal collaboration. It must seek allies outside its ranks. Today this means looking to the United States.

U. N. and Commonwealth

Commonwealth members are also members of the United Nations. They appear in the U. N. as independent countries, but they undoubtedly gain some prestige as Commonwealth associates. Each associate speaks in its own voice. Both the consensus that exists amongst the Commonwealth nations and the divisions of opinion that characterize it find expression at U. N. The Commonwealth countries differ in the importance they assign to U. N. (and parties within Commonwealth countries differ on this point). Should the emphasis be on U. N. or on treaties outside but not in conflict with the principles of U. N.? Today no Commonwealth country can be said to be willing wholly to sink its international identity in U. N.

Two Commonwealth countries, India and South Africa, have had difficulties with U. N., South Africa over efforts to members to make its domestic racial policies the subject of U. N. debate, and India over the Kashmir dispute it has long conducted with Pakistan. The net effect in the South African case has been to make its relations with U. N. formal and distant and with regard to India to raise the possibility that India has a double standard of political morality. The fact that the Kashmir question has found its way to U. N. illustrates that the Commonwealth lacks a machinery for dealing with disputes between members. It wholly relies on "good offices," in this case not adequate. The dispute is a point of strain in Commonwealth relations no less than an irritant in international relations at the U. N. level.

It is India that has tried hardest to make South Africa's racial policies a matter of formal debate at U. N. In South Africa, the established British policy of mild liberalism in race relations has collapsed, as astute observers of Commonwealth affairs have long predicted it would sooner or later. In the international organization, South Africa can seek the protection of the principle of "domestic jurisdiction." All the Commonwealth can do for her is to defend the correctness of her position and this both the United Kingdom and Australia have done. But it is perfectly well understood that South Africa's racial policies do have both inter-

national and intra-Commonwealth implications of a serious and destructive kind. Within the Commonwealth the policies and the tensions they create between members have obvious significance in straining relations between the predominantly European associates and the African and Asian members and this jeopardizes the possibility of the Commonwealth serving as a conciliator amongst the disparate races of the world. If the Commonwealth as one of the world's great multi-racial political associations fails as conciliator, it will be a major disaster to world order.

Residuum of Good Will

How to summarize intra-Commonwealth relations succinctly is a bit of a puzzle, especially when it is recalled that in spite of differences of opinion and policy which may on occasion become acute there is a residuum of goodwill amongst the associates that it is not easy to exhaust. It is this residuum that holds the Commonwealth together today and is chiefly relied upon to hold it together tomorrow. If India condemns South Africa for its racial policies, and the United Kingdom for adventures like that at Suez, and looks askance at Australia and New Zealand for their attitudes on these matters, this is not to say—not yet at any rate—that she is about to get out of the Commonwealth, though individual Indian voices may advocate that course. For the hard and negotiable fact is that the sense of ultimate common purposes in a world of uncertainties is a reality and the net gains of continued association to promote these purposes, even if by screechingly different methods, are considerable.

If South Africa outrages Asian and African sensibilities, not to mention the conscience of the world, and is outraged in turn by the failure of all hands to "understand" her predicament and the "necessity" of her policies, then South Africa may talk in a raucous voice of becoming a republic—no longer a very effective bogey in the Commonwealth—but this does not mean that she will step outside the Commonwealth simultaneously. She, too, recognizes that the value of the Commonwealth association is considerable and worth hanging on to.

On the record so far it would seem that all that can break up the Commonwealth, or lead to the defection of an associate, is not a failure to reconcile plaguing differences of policy—these will persist, even emerge in new shapes—but the abandonment of all the overarching identities of purpose and aspiration. Thus, if a Commonwealth associate should go Commu-

nist, it would undoubtedly be assumed also to have stepped outside the association.

How the Commonwealth Began

It has taken over a hundred years to bring the Commonwealth to its present position. Its point of origin is conventionally taken to be the proposals Lord (Radical Jack) Durham made to solve the problem of governing obstreperous colonies in Canada. He proposed devolving upon the resident settlers certain powers, reserving others for exclusive Imperial handling. From that time forward the characteristic program in a maturing British colony was to claim the powers of local self-government. To these, eventually, were added the powers needed for full autonomy. By 1907 the more advanced colonies were being called "dominions" with the implication that they were on the verge of nationhood. World War I stimulated the desire of certain of the dominions to translate this implicit admission into reality and in 1926 an Inter-Imperial Relations Committee phrased the position thus:

"They are autonomous Communities within the British Empire, equal in status, in no way subordinate one to another in any respect of their domestic or external affairs, though united by a common allegiance to The Crown, and freely associated as members of the British Commonwealth of Nations."

This formula was given legislative form in the Statute of Westminster, 1931. However, this venture in verbal rationalization and statutory law did not result in arresting change within the community. As early as 1939, theoreticians accepted the proposition that "dominion status" no longer correctly described the position of the Commonwealth associates, for equality of function as well as status, especially in foreign relations, had transformed the situation. After World War II, when the Asian colonies were granted complete autonomy, the whole relationship was again reinterpreted to make the integrating principle of "common allegiance to The Crown" apply only to the associates as members of the Commonwealth, not as citizens of their own nation, thus allowing India to enter the Commonwealth as a republic. Today it is possible to be a citizen of a Commonwealth country without being in the old-fashioned sense a "King's man" at all. Only in the monarchical associates do the old sentiments persist. The net result was to make the Commonwealth at once more flexible and more loose in organization.

The present-day Commonwealth is, in large measure, a functional organization, more in the nature of a carefully calcu-

lated political association, than an organic structure with its roots in the mystical blood of the British people. It is, as a matter of fact, no longer predominantly British racially. It is multi-racial. But whatever word correctly describes its character, the Commonwealth of Nations today is as securely founded as any association of sovereign states the world currently has, or ever has had in its history. This may not appear offhand to be saying much, but to those who recognize the virtue of being realistic about human affairs, and not taking an all or nothing attitude, it is saying a very great deal. The Commonwealth of Nations gives a valuable example of *community amongst sovereign states* in a world overly emphatic in favor of atomistic sovereignty.

Australia

By C. Hartley Grattan

The Commonwealth of Australia, located in the far southwest of the Pacific Basin under the overhang of Asia, with its front door opening on the Pacific Ocean and its back on the Indian Ocean, has since 1949 been ruled by a Liberal Party-Country Party coalition, with Robert Gordon Menzies, leader of the Liberals, as Prime Minister. The Official Opposition is the Labor Party, led currently by Herbert V. Evatt. For eight years before Menzies came to power, Labor had ruled, but when the tide turned against Labor, it turned decisively.

In Australia, a parliament normally has a life of three years and an election will take place late in 1958. All signs indicate that the tide is still running against Labor, particularly because it is torn by factional feuds, but it is well to keep in mind that the only alternative to Liberal-Country Party rule is Labor and to Labor the voters will one day turn again, probably only when currently open wounds are healed and divisive policy proposals are compromised or abandoned.

The Commonwealth is, of course, a federation and Labor, while out of power at the federal level, often holds power in the states, though at this moment it holds office in but two, New South Wales and Tasmania. The politics of Australia is not understandable, moreover, unless it is kept in mind that, in office or out, the Labor Party is a dynamic and durable force. It is the only political party on the national scene with a continuous history since federation in 1901. If, from the point of view of a conservative or a liberal, it chases after strange gods on occasion, or takes to expelling large blocks of members, it is nevertheless the case that by action and

reaction to its campaigns the politics of Australia is largely determined. Labor has been the driving force behind the growth of the welfare state in Australia and much that it has done while in office is determinative of the climate in which its conservative opposition must function.

The Six Colonies

The six colonies of Australia—New South Wales, Victoria, Queensland, South Australia, Western Australia, and Tasmania, founded between 1788 and 1859—were joined in a federation as this century began. The colonies then took the designation *states*. A House of Representatives and a Senate were provided, the number of seats in the House being determined on the basis of population (this giving New South Wales the largest delegation), and in the Senate on the basis of equality of representation of states. The key representative body is the House. The leader of the majority party in the House (or the leader of the senior party of a coalition) becomes the Prime Minister and selects his Cabinet from the House (predominantly) and the Senate. There is an independent judiciary—the High Court performs much the same functions, including judicial review, as the Supreme Court of the United States. The state governments are organized on the British parliamentary model and uniformly date back constitutionally to colonial days. The only really striking innovation is the adoption by Queensland of the unicameral (one-house) system. The political head of a state is called a Premier, to distinguish him from a Commonwealth Prime Minister; and the Queen's representative is a Governor, as distinguished from a Governor-General. Voting in federal elections is compulsory and is on the preference system—a voter indicates his first, second etc., preferences on the slate.

The Australian continent is prevailingly warm and dry and contains immense areas of low-rainfall country with a high evaporation rate. Only about a quarter of the total area, which is approximately the same as continental United States, has the rainfall which allows close settlement. The "heart" of the continent is off-side in the southeastern portion, roughly contained by a line drawn cross-country from Brisbane in Queensland to the head of Spencer Gulf in South Australia. Most of the people, most of the agriculture, and most of the factories are within that area. There are valuable extensions of it: a narrow, well-watered tropical area between the Pacific Ocean and the coastal mountains in Queensland; and a sizable block of country in the southwest of Western Australia,

mostly south of Perth. There is always ample room for differences of opinion about the actual and alternative uses for country both within the areas here selected as "good" and the rest of the continent. The current pattern of use is roughly as here indicated. Progress in Australia, both in good country and indifferent country, can helpfully be viewed in terms of technological change and mastery. Much of the future progress of Australia will arise from a more intensive use of the areas currently under exploitation.

The first great and successful system of exploitation, the one that first roughly defined the area of the continent open to profitable use, was the pastoral, with the running of sheep for wool predominating, and cattle of secondary importance. Growing cattle for beef had to await the application of refrigeration to overseas steamships. Wool growing is still the basic land industry of Australia and Australia is the world's chief producer of wool. Crop growing has been important in Australia from early days, but crop agriculture did not become significant to the export trade until around 1880, for it took that many years to develop the necessary technology (associated with large-scale dryfarming) and the requisite transport, domestic and overseas. Today Australia is, for example, one of the world's major wheat exporters; and it also exports a wide variety of other foodstuffs from dried grapes to butter and cheese and sugar.

Basic Economic Policy

The basic economic policy in recent years has been to push forward with industrial development. Modern steel production dates from 1915 and so does modern industrial history. The whole accent of the great economic expansion that has dominated the Australian scene since World War II has been on factory industry. Today far more people work in factories and offices than on the land; the country is highly urbanized; and it rates as one of the highly industrialized countries of the world. Questionings of the wisdom of this policy, which are voiced, are decidedly minority views. The hope is that manufactures will play a larger and larger role in the export trade, currently dominated by the products of the land industries.

As a trading nation, Australia has traditionally been, and currently is, closely tied to the United Kingdom, but there is a healthy tendency, cultivated by policy, to scatter its trade over a wider and wider field. Nevertheless, the country is still deeply involved in the Imperial trading system and its financial counterpart, the

Sterling Area. The state of the London commodity markets and the state of Australia's sterling balances in London are decisive to Australia as trader. One of Australia's persistent economic problems is that while it has drawn close to the United States politically since World War II, it still normally runs a dollar deficit as an international trader. To meet its dollar obligation, it must get dollar allocations from the Sterling Area authorities. The marked increase in the flow of American investment capital to Australia since World War II to participate in the great industrial development has not fully corrected the condition. As matters stand today, Australia is still firmly within the British orbit economically, though not as deeply as its neighbor, New Zealand.

Australia has for many years placed a high emotional value on the "British connection," whatever the aspect of it under discussion. It was a foundation-member of the Commonwealth of Nations and still prefers to interpret the Commonwealth relation as an intimate rather than a loose arrangement. It feels—or some of its spokesmen feel—that some of the associates carry autonomy too far. Nevertheless the fortunes of World War II and international politics since the war have forced Australia to relinquish its policy of isolation within the Imperial fold and to formulate and pursue a national foreign policy. This has proved true both for the conservatives and Labor, though Labor at first showed rather more alacrity to respond.

Foreign Policy

In formulating a foreign policy, the Australians must take into account an array of factors which must somehow be balanced and which are not always easy to balance symmetrically. It must (1) define in terms reconcilable with present-day realities its relation to the United Kingdom; (2) it must define its relations with the other associates of the Commonwealth; (3) it must cultivate close relations with the United States as the predominant power in the Pacific Basin; (4) it must give proper weight and perspective to its activities in the United Nations; and (5) it must work out satisfactory relations with the countries of South and Southeast Asia both in and out of the Commonwealth.

Perhaps the fundamental problem, as the question is viewed today, is how correctly to balance its relations with the United Kingdom on the one hand and the United States on the other, though relations with Asia push firmly for major attention. Ordinarily, since World War II,

it has not been too difficult for Australia to keep its relations with the United Kingdom and the United States in balance. Australia has moved quite close to the United States in the Pacific and Asia without offending Britain and has followed a national line in Asia without tangling with the United States. It participates in ANZUS and SEATO (Australia, New Zealand, United States defense pact and Southeast Asia Treaty Organization) with aplomb. It does not recognize Red China. In fact, Australia has jeopardized its policy of balance between the United States and the United Kingdom more by siding with the United Kingdom over Suez than by getting too close to the United States on any postwar issue. But it is nevertheless the case that Australian-U. S. relations worry the Australians a good deal, especially when put in the perspective of what the United States will do if Australian security is actually (not theoretically) menaced by developments in Asia. Will the Americans again come to the rescue as in World War II?

For the Australians obscurely recognize that they are a paradox of history. They are culturally wholly Western, but they

exist in what is geographically "the East." They are not, like the Americans or the Canadians, so situated as to face both Europe and Asia. They are "in" the Asiatic area, though not as intimately in it as some Australians tend to argue. At any rate, they are fairly close to it and obviously remote from their Western fellows, even in the era of jet aircraft. What goes on in Indonesia, immediately over their heads like an umbrella, is obviously a more intimate worry to them than to the far-away Americans. They are Western and show few signs of any wish to be assimilated to "the East," either politically or culturally. When the expansion of Europe dispersed Europeans over the globe, they found in Australia a continent even emptier than North America. There they—chiefly men from the British Isles—built up a culture from scratch. The result is a Western exotic in that part of the globe where the standard style of life is Eastern. Hence the current Australian anxiety to sustain the position by rapidly building up population and economic strength. Only thus, plus the right foreign policy, can the Australians hope to sustain their peculiar position in the critical decades ahead.

CANADA

By

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CANADA TODAY is a nation of disproportionate population and resources. Its population of less than 17,000,000 is almost ludicrously small in relation to its territory and resources. Canada is a very small boy wearing very large pants. Because of this disproportion, the nation's interest and activity in world affairs is also out of balance with its population and even with its industrial development, which is large in relation to its population. The consequence is that a country which ought to be wrapped up in its internal development, in fact has to be actively concerned with world politics. The disparity of Canada's population and resources, combined with its high degree of industrial development, gives rise to surpluses of raw materials and manufactured goods, which must be disposed of as exports.

To this economic reason, a second and political reason must be added: Anything approaching a policy of isolation within North America means domination by the United States for Canada.

In world politics, Canada moves in three areas, the Commonwealth, the Americas and the United Nations.

The Commonwealth is a traditional association. In it Canada finds means to preserve old friends, such as the British members, and to make new, such as the Asian and the African. In it, Canadians also hope to discover proof of their faith that political liberty is the surest bond of union among free nations.

In relations with the United States, Canada finds, of course, its best hope of defense and the source of much of its developmental capital and of its industrial strength. The binding military alliance between the two countries and the extensive economic ties constitute a relationship so close that among Canadians there is concern for the political independence of their country. This concern has its cause not in policies or acts of the United States, but in the tremendous inequality of the two countries.

Thus, the relationship with the United States, though in many ways a fortunate and rewarding one for Canada, is in other ways a cramping and even an irritating bond. Canada therefore seeks relief from this dependence in the United Nations. Here Canada has enjoyed participation in

world politics and, thanks in great part to the personal candour and diplomatic skill of Lester B. Pearson, Secretary of State for External Affairs, 1948-57, has achieved some distinction and performed some useful services. The United Nations, since the Security Council deadlocked, has of course become a forum of the smaller powers. In that forum, Canada, as a nation with a minimum of political interests outside its own borders, had a natural role to play as confidential intermediary and honest broker. This role Canadian diplomatists took up with much gusto and to some effect.

Canada has been a keen member of one other international organization, the North Atlantic Treaty Organization. It is not too much to say that NATO has been the ideal international organization for Canada. It brings into combination its Commonwealth and American associates. It affords a perfect framework in which to use Canada's relatively small population and relatively great resources in conjunction with those of both the United States and the United Kingdom. But while it brings these two together in a relationship from which Canada is not excluded, it also, by means of its European members, gives Canada associates whose members do something to offset the power of the two great members. These reasons suggest why Canada participated so eagerly in the creation of NATO and has contributed relatively so much to its upkeep even, as will be suggested, to its own possible detriment.

Canada in World Politics

Canadian foreign policy took a new direction after 1945, guided by two major concepts. One was that Canada, by virtue of its industrial strength, was no longer a small power. It had become a "Middle Power," with some of the power and therefore a claim to some of the responsibility and authority of a Great Power. The concept of Middle Power is at best only partly workable. Its validity is conditional upon world politics being responsive to economic and diplomatic influences rather than subject to military force. Or, to put it another way, the more world politics become power politics, the less workable is the idea of Middle Power. But from 1945 to 1956 there was a surprising number of opportunities for Middle Power politics.

The second idea was that after World War II Canada could not practise isolation as it had done before 1939 as a member of the League of Nations. Canada, the champions of its new policies held, must be ready to commit itself to measures designed to preserve a conjunction of world affairs favorable to Canada. Canada, in short, like the United States, gave up isolation.

If Canada was henceforth to be committed, to what was it to be committed? The immediate answer was, to the Charter of the United Nations. The Canadian diagnosis of the causes of World War II was the popular North American one, that the war had come about because the great powers had not supported the League of Nations against Hitler and Mussolini. The way to prevent another such war therefore was to establish a superior international organization and support it.

But when it became apparent after 1945, that even the United Nations was not to be immune from the rule that victory undoes the alliances which war makes, Canada had to make more limited but more specific commitments.

One of these was of course to NATO. By its membership in it Canada took the unprecedented step of committing its armed forces in time of peace to defensive positions beyond the borders of Canada. This was a remarkable indication of how profound were the forces which had produced the change in Canadian foreign policy. At least as large a majority of Canadians as of Americans had been traditionally and deeply opposed to any such involvement, and much more to any such engagement before an outbreak of war.

More recently, development of Russian nuclear power and the possibility of attack on North America across the Arctic has revived another Canadian commitment. This was one which took shape before World War II and which had almost been forgotten. At Ogdensburg in 1940 the two countries (i.e. Canada and the United States) set up the Permanent Joint Defence Committee. This act arose from the identity of interest in the defense of North America. The war itself and the fact that post-war threats to the peace had had targets more immediate than North America, caused the undertaking to fall into the background. But the threat of trans-Arctic attack revived it. Canada suddenly found itself in the line of fire between the nuclear giants, with the bulk of its own active forces stationed in western Europe. The realization of the necessity for a positive and courageous policy of commitment, evident to the clear-sighted in 1945, was now manifest to all.

Canada and the United Nations

Support of the U. N. has been the cornerstone of Canadian foreign policy since 1945. When the U. N. was set up, Canadians were inclined to be more interested in its economic and social agencies than in the political ones. In the former, the Economic and Social Council and the specialized agencies, such as the Food and Agricultural Organization, the Canadian

policy-makers thought that Canada's economic development, and its comparative political disinterestedness, would make Canadian efforts particularly useful. They also thought that in these agencies Canada would find a sphere suited to its peculiar development and situation. In it, Canada would be able to perform services and exercise an influence commensurate with its economic strength and beyond its political authority and military power. This idea was called the "functional" principle and on it was based in large measure the concept of Canada's role as a Middle Power.

Now that the economic and social agencies of the U. N. have fallen into the background as the world becomes preoccupied with the rivalries of East and West, Canadian hopes have dimmed in this respect. Also Canadian hopes of playing a great part in the economic and social agencies exaggerated the amounts of money and men Canada could in fact spare from its own development. Canada is itself, after all, in terms of its potentialities, an underdeveloped as well as an underpopulated country.

Nonetheless, the Canadian money contribution to the general expenses of the U. N. and to its specialized agencies is in most instances relatively high, when measured by percentages. These facts reflect the determination of the Canadian government and public to do somewhat more than Canada's share to maintain the international organizations which afford the smaller nations some effective participation in world politics.

Perhaps the most characteristic aspect of Canadian policy in the economic and social work of the U. N. has been the steady Canadian pressure for the setting up of a Special United Nations Fund for Economic Development. While Canada approves economic aid given by individual countries, it is manifestly necessary so far as possible to separate economic aid from national and especially from military considerations. The present membership of Canada on the Economic and Social Council affords an opportunity to press the development of the Special Fund.

To turn to the political agencies of the U. N., Canada is a member of the Security Council at present, 1957-1960, for a second term of office, the first having been in 1947-1949. Canadian membership in the Council has been marked by three things, disappointment at the extensive use of the veto by the U.S.S.R.; a tendency to see world politics in the same general terms as the United Kingdom and the United States; and quickness to attempt to bring disputes into the hands of the United Nations, particularly the hands of the Secre-

tary General, Dag Hammarskjöld. The Canadian action in calling for intervention by the U. N. in the dispute between Nationalist and Communist China over Quemoy and Matsu islands in September, 1958, is the outstanding example of this Canadian disposition to prefer action by the U. N. to action by one or more of the great powers. It was only after hesitation, and when convinced that it was a U. N. war, that Canada entered the Korean conflict.

The small power representatives on the Security Council, however, are in the nature of things overshadowed by the permanent members. And the Security Council itself has been largely nullified by the breach between the U.S.S.R. and the Western powers. The result of course has been a gain in influence and prestige by the General Assembly, and by the small nations whose numbers dominate it. Canada as a small and relatively disinterested nation, to some degree in the confidence of the Western great powers, has been able to play an active, an often useful and, on at least one occasion, a brilliant part in the U. N. The Suez crisis of 1956 will serve to illustrate both what a policy based on support of the U. N. means to Canada, and how effectively Canada has been able to act in the General Assembly.

It will be remembered that in the Suez crisis attention did not fasten on the fact that Israel had attacked Egypt, and that France as well as Britain intervened in the resultant war to obtain control of the Suez Canal from Egypt. Attention in the United States and Canada, and indeed in the rest of the world, focused on the fact that the United Kingdom had attacked Egypt, presumably to recapture its former place in that country.

In Canada there was a public reaction of mixed and conflicting sentiments. There were those who were deeply angered by the intervention, among them the Prime Minister, Louis St. Laurent, but they were no friends of Nasser. There were those who sympathized with Israel, but were appalled by the French and British action. And there were those who were prepared to support the Franco-British action, but were appalled by its recklessness and its incompetence. One result of this conflict of emotions, in the old British sections of the country, was a frustration which discharged itself against the government of Mr. St. Laurent in the general election of 1957.

The reaction of the Canadian Department of External Affairs, however, was to attempt to restore peace and to preserve the Commonwealth, the Asian members of which were overwhelmingly on the side of Egypt. The U. N. afforded the sole agency

by which this could be done with a minimum loss of face to the powers which had attacked Egypt. Mr. Pearson's swift improvisations in the General Assembly procured first the despatch of Mr. Hammarskjöld to Egypt and then the provision of the United Nations Emergency Force to restore the frontiers on which the fighting began and to set a screen between the belligerents. Canadian troops made up a considerable part of the force, and it was placed under the command of Maj.-Gen. E. L. M. Burns, the Canadian officer who was already in charge of the supervision of the truce between Israel and her Arab neighbors.

Canada and the Commonwealth

In world politics of today the Commonwealth has, Canadians generally believe, great practical value. That is that the Commonwealth maintains a bridge to Asia from the western world. It is a political association more intimate, more confidential, more influential, than the United Nations can be. The difference is that between a club and a public meeting. Many Canadians felt indeed in 1947, as a poll of opinion then indicated, that the real test of the value of the Commonwealth was whether India, Ceylon, and Pakistan would choose to remain within it. They did so—although Burma did not—and now Ghana has chosen to remain also, as it seems likely Nigeria will. Thus the Commonwealth has become a free association in which Africans, Asians, and Europeans may meet as equals and talk in confidence.

To what an extent Canadian policy can be affected by the Commonwealth association with the Asian—or African—members was strikingly illustrated by the Suez crisis of November, 1956. The effect of Suez on Canadian public opinion has been discussed above. The particular concern of the Department of External Affairs was with the shattering consequences of the Franco-British intervention on relations with the Asian and African nations. The possibility of the Commonwealth being disrupted and the bridge to Asia collapsing was a clear and imminent danger.

What helped to save the situation was the fact that Canada and India saw the disaster in much the same way and strove together to avert a calamity both feared. Mr. Pearson's great coup in winning the support of the General Assembly for the creation of the United Nations Emergency Force made possible the Franco-British withdrawal, the restoration of the Near Eastern situation to U. N. control, and the continuation of the Asian and African nations in the Commonwealth. It was action taken and by the U. N. which averted the

worst consequences that the Canadian Department of External Affairs feared would flow from Suez, but much of that action was inspired by the association in the Commonwealth of Canada and India. Mr. Nehru and Mr. Pearson spoke the same language; Mr. Nehru and Mr. St. Laurent shared a common aversion to imperialism.

Canada values the Commonwealth for another reason than the special ties it affords with the Afro-Asian world. It is that it gives Canada, in a more limited and intimate way, a circle of associates outside America which operates, as does the U. N., to lessen Canadian dependence on the United States. It is for this reason and not merely for reasons of sentiment, that many Canadians see in the expansion of Commonwealth trade a sensible and inoffensive way of reducing Canada's economic subordination to the United States. The amount of American capital investment, the control of American branch factories by American head offices and the excess of American imports over Canadian exports to the United States seem a matter of concern to many Canadians who are not necessarily anti-American in sentiment. They merely wish to insure Canadian control of the country's economic development by a judicious diversification of foreign interests in Canada and of Canadian external trade. The room for manoeuvre in redressing the balance between American and other economic relations is admittedly narrow; the Canadian and American economies are extensively integrated in many important sectors, such as the oil, base metals, wood pulp, and automobile industries.

Canada and NATO

If the Commonwealth is to be valued as a psychological and commercial balance to the United States, so also is NATO. Here Canada finds perhaps its ideal form of association, in that it is more intimate than the U. N. and more definite than the Commonwealth. It recreates, if mainly for military and presumably for transient reasons, that European-American relationship in which Canada developed.

Canada found NATO so satisfactory that it maintained substantial forces in Europe. These forces were kept up out of a total military budget which since 1950 has run at about \$2,000,000,000 a year. This tremendous amount has been taken from a Gross National Product which was \$18,203,000,000 in 1950 and \$30,475,000,000 in 1957. The Canadian Army maintained one brigade group, with all auxiliary forces in Germany, and the Royal Canadian Air Force the First Air Division in France and Germany.

Canada and the United States

Nothing perhaps could better illustrate the relations of Canada and the United States than the fact that Canada for the sake of NATO practically resigned its enormous northern territories to the custody of the United States. So great a trust in the friendliness and good faith of the United States almost obscures the basic premise of Canadian foreign policy, that Canada must seek to have a multiplicity of extra-American relations in order to devise an offset to the sheer weight and pressure the United States exerts by passive neighborhood alone. It is not defense against American aggression that Canada needs; it is merely to avoid national suffocation that Canada needs an open window on the world if it is not to be absorbed by osmosis into the gigantic and dynamic society beside which it lives.

The Canadian need to balance the pressure American society exerts upon the national life is itself opposed, however, by the needs of continental defense. By reason of the disparity of its population and territory, Canada has always had to rely for defense on some wider military complex than its own national forces constituted, first that of the British Empire, and now that of NATO. Neither of these, however, was organized for the defense of North America and Canada has had to face the fact that to defend its territory it must unite with the United States, and give that country facilities to ensure that Canada should not become a base for attack on the United States. Both realism and good neighborliness led to this conclusion.

With the growing prospect of attack by bomber or missile over the Pole, continental defense has become increasingly significant for both countries. The latest indication of this, since the construction of the Distant Early Warning (DEW) line of radar installations begun in 1954-55, was the formulation in 1957 of the North American Air Defense command (Norad) by which American and Canadian air forces are placed under a joint command, the commanding officer being Lieut. Gen. E. Partridge of the United States Air Force and the second in command being Air Vice Marshall C. R. Slemon of the Royal Canadian Air Force. The Canadian government which agreed to Norad had been elected in an election in which there were distinct anti-American overtones.

When on the one hand Canada is obviously determined to maintain its national identity and on the other prepared to entrust its territory to American guardianship and put its air defense under American command, it may be asked why there should have been a free and rather

querulous expression of anti-American sentiments in the election of 1957, and even earlier.

The practical difficulties arise from honest differences of approach. To the practical Canadian temper it seems indisputable that Mao Tse-tung is master of China. They feel none of the American sense of outrage and defeat at the Communist victory there. To them therefore recognition seems only common sense, and there is no doubt that the Canadian government refrains from recognition only because any benefits which might accrue from it seem likely to be much less than the strain recognition would impose on relations with the United States. None the less, neither the Canadian government nor people is prepared to lift a finger in defense of Nationalist China.

Canada has prospered on the great rush of American capital since 1945, but Canadians have resented some of its accompaniments, such as American control of whole industries, notably the petroleum industry. Such a reaction is not wholly reasonable, but it is of course reminiscent of the similar American dislike of British investments in the United States before 1914. It is exceedingly difficult to forgive one's creditors. The control by the State Department of shipments to China from American-owned factories in Canada was generally resented, and with justice, but it is perhaps the one solid grievance of its kind.

The important thing in American-Canadian relation is an understanding of the real and profound differences between the two countries. For example, Canada is a land of minority rights; Quebec ensures that. The United States is the land of majority rule; the Civil War ensured that. The American never knew defeat, until he met it in China; Canadians have been defeated many times. The American thinks nothing impossible; the Canadian customarily expects the worst. These differences sprang from a different historical experience, dispose the American either to patronize or ignore the Canadian, and the Canadian to resent being viewed as a kind of lesser American.

Some sense of this need and of the differences from which it sprang prompted the visit of President Eisenhower to Ottawa in July, 1958, and the setting up of joint committees of the American and Canadian cabinets, and of Congress and Parliament. If these bodies can function it may contribute not merely to a better understanding between the governments and legislatures of the two countries, but also their more effective co-operation in continental defense and in world politics.

New Zealand

By C. Hartley Grattan

In 1957, the New Zealand Labor Party returned to office after an absence of eight years, defeating its principal opponent, the Nationalist Party, by a narrow margin. The country's form of government is British parliamentary democracy, the principal variation being the absence of an upper house, abolished in 1950. In recent years there have been two principal political parties which normally command around 90% of the vote, and a varying number of fringe parties and independent candidates for office. The Labor Party basically represents the trade unionists, who are strongly organized, while the Nationalists speak for the conservative farmers and the urban business interests. The Labor Party and the Nationalist Party are evenly balanced. Since 1935 Labor has won five elections, the Nationalists three.

Because of the balance of the parties, politics must be conducted within a fairly constricted frame of reference. The emphasis is decidedly "social." The parties are concerned to a large degree with the details of who gets what and how from private and state enterprise and from the redistribution of income through the elaborate social services. There is a large area of agreement on the use of the power of the state to achieve economic and social goals by administered policy. What differentiates the parties is the greater willingness of Labor to "control" the economy in detail. The Nationalists normally favor a more relaxed policy.

New Zealand is a small island nation in the far South Pacific Ocean, 1,200 miles from the nearest continental landmass, Australia. Just over 2,000,000 whites, predominantly of British stock, and 138,000 Maori (Polynesian natives) live there. The approach to the Maori minority is in general tolerantly assimilationist. The Maori, predominantly a rural people, have as their outstanding problem a lack of sufficient fertile land. Of the two principal islands of the group, the North Island is most intensively developed, has the larger proportion of the population, the largest city, Auckland, and the capital city, Wellington. The islands are wholly within the temperate zone, rainfall is generally adequate and regular, and the prevailing topography hilly with occasional high peaks in the North Island and quite spectacular mountains, in which glaciers are found, in the South. The islands are in the earthquake belt, but disastrous 'quakes are uncommon.

The economy is founded on pastures, mostly now artificial, devoted to dairying and grazing. Productivity is high and the

standard of living ample—higher than Australia's. New Zealand is a major exporter of butter, cheese, meat, and wool. Crop growing is for local consumption and is of secondary economic significance. In recent times light manufacturing has developed and the establishment of heavy industry mooted. The basic power resource is hydroelectricity. The New Zealand economy is described as "dependent," in that it is an export economy (with the second highest trade per capita in the world), closely linked to that of the United Kingdom. About two-thirds of all exports go to the United Kingdom, about half the imports come from there. Great efforts have been made in recent years to stabilize the economy within the prevailing domestic pattern. However, any adverse movement of prices on the U. K. markets will throw the New Zealand economy into difficulties, as occurred in 1958. The crisis of 1958 led the New Zealand government to turn to Australia for aid and in early July a loan of £10 million (\$22,400,000) was granted. Moreover it seems likely that New Zealand and Australia will seek to strengthen their trading positions by close economic collaboration in the future.

The social services are highly elaborated in New Zealand. In fact, the New Zealanders were pioneers of the welfare state, the movement dating back to the 1890's. The temper of the country is equalitarian and the prevailing frame of social reference is lower middle class.

New Zealand has in its charge a number of South Sea Islands of which the best known is the Trust Territory of Samoa (of which group the United States controls part, thus sharing a common frontier with New Zealand).

In foreign affairs, New Zealand is normally satisfied to rest in the shadow of the United Kingdom. It is one of the "loyal" associates of the Commonwealth of Nations. When the relations of the members of the Commonwealth were formally defined back in 1928-1931, New Zealand was a member of the party of reluctance. It only brought itself into line with those developments during World War II. It has not felt it wise or necessary to go as far as neighboring Australia in developing its own foreign policy and a machinery of diplomacy to implement it. However, it has accommodated itself, with reluctant grace, to changed international circumstances by moving somewhat closer to Australia on a regional basis than was formerly characteristic, by accepting the implications of the power-predominance of the United States in the Pacific by joining the ANZUS Pact, and its membership in SEATO and participation in the Colombo Plan illustrate its acceptance of the

logic of its new relationship to Asia. New Zealand has played an occasionally conspicuous and generally creative role in the United Nations, but it reverted to its traditional position when it stood with Britain in the Suez crisis of 1956. How-

ever it was then under a Nationalist administration. Labor might have done differently. Today Labor's announced foreign policy is within the established pattern save for advocacy of the abolition of nuclear tests.

Because the World Politics section is organized on a regional basis we have placed other members of the Commonwealth within their areas. You will find each member of the Commonwealth of Nations discussed throughout this World Politics section.

FREE EUROPE

By

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Europe in the 20th Century

ONE OF THE decisive historical changes of the twentieth century was the decline of Western European civilization. Weakened by wars and revolutions and enclosed between the Atlantic and the frontiers of the Soviet Union, Western Europe lost her traditional dominance. Along with this development came the deterioration of the British Empire, the emergence of a new order in Asia, and the rise of the United States and the Soviet Union as world powers.

Twice in the first half of the twentieth century Europe was left in disorder and ruins by great wars. World War I from 1914 to 1918 came as a result of clashing imperialist ambitions, trade rivalries, militarism, and chauvinism. Germany was thwarted in her first attempt to obtain "a place in the sun." The tragic results of the war included huge human and material losses, the disruption of the European economy, and a residue of irreconcilable hatreds. Economic collapse was followed by challenge from totalitarian mass movements—communism in Soviet Russia, fascism in Italy, and national socialism in Germany. There was a bitter struggle for the continued existence of democratic ideas and institutions.

Many of the same causes that brought about World War I acted to lead to World War II. The human and material losses this time were inestimably greater. The entire fabric of European economic life was dislocated. Maintenance of the war effort engulfed all aspects of economics. Income from exports declined to a minimum, and investments were liquidated to pay for critical war materials. At the close of the war the gold and dollar reserves in Europe were near the vanishing point.

By 1947 a critical economic crisis was at hand.

From the American point of view this decline of Western Europe was a regrettable development. There were bonds of common interest and common historical development between Western Europe and the United States. The United States could not stand idly aside and witness the further deterioration of Western Europe. As leader of the Free World, the United States took on the burden of bolstering the faltering Continent. This took primarily the form of economic assistance. There was no necessity nor desire for political interference, since in general the political systems of Western Europe are oriented in the direction of the liberal-democratic state.

Beginning after World War I and continuing at accelerated pace after World War II, the United States stepped into the power vacuum resulting from the abdication of Great Britain as the top world power. The United States has had to pay a penalty for this new position. There has been some resentment in Europe against American wealth and prosperity, a kind of attitude of distrust toward the rich uncle.

On the other hand, there has been widespread recognition throughout Free Europe of the important role played by American aid. And there is also awareness that the American way of life is immeasurably closer to European civilization than is that of the Soviet Union. The choice of Free Europe for American orientation is a realistic policy based on survival. The people of the Western European countries are much better informed than are Americans on the nature of the Russian giant to the East. Closer to Moscow, they are aware of its aims, aspirations, and methods. As hosts to the persecuted who have escaped from

behind the iron curtain, they know at first hand the nature of the police state and its negation of the Western liberal-democratic ideology. They want their problems solved in a free society and are unwilling to barter their heritage of freedom for doubtful promises of a better future.

The Cold War

After World War II, slowly but with ever-increasing momentum, the greater part of the world gravitated into two antagonistic camps. What is called the "Cold War" is an expression of an ideological battle between the cultural humanism of the Free World, under the leadership of the United States, and the totalitarianism of the Soviet Union.

The balance of power in the postwar world shifted drastically as the Soviet Union annexed 200,000 square miles of European territory with some 24,000,000 inhabitants. The Free World took political, economic, and military steps to contain communism and prevent its spread in Europe as well as in Africa, the Near East, and the Far East. In the immediate postwar years UNRRA—The United Nations Relief and Rehabilitation Administration—brought relief to economically stricken European areas. In June, 1947, General George C. Marshall, then Secretary of State, proposed further support to the nations of Europe to prevent any additional disintegration. Under the European Recovery Program (E.R.P., or Marshall Plan) \$11 billion were spent from 1948 to 1951. The Marshall Plan, though labelled by Communists a form of "American imperialism," was an undoubted success, reducing communism in France, Italy, and West Germany.

In March, 1947, President Truman obtained authorization from Congress to send \$400 million to assist Greece and Turkey to overcome the threat of Communist infiltration (Truman Doctrine). Within three years the Communist guerrillas in Greece and Turkey gave up the struggle—the first significant victory of the policy of containment.

On April 4, 1949, Britain, France, Belgium, the Netherlands, Luxembourg, Norway, Denmark, Iceland, Italy, Portugal, Canada, and the United States became the first dozen members of the North Atlantic Treaty Organization (NATO), which agreed that an armed attack on any one or more of them in Europe or North America would be regarded as an attack upon all. This regional defense treaty marked the first time that the United States pledged itself before the outbreak of war to go to war in support of its allies. Greece, Turkey, and West Germany later joined NATO to com-

plete a pool of fifteen nations in a unique military and economic partnership. The United States assumed about one-third of the cost of mutual military bases. NATO is militarily divided into two major commands—SHAPE for Europe and SACLANT for the Atlantic Ocean area. The armed forces under the NATO Supreme Command include not fewer than two million men, about one-third of the total armed strength of the fifteen member nations. With forty-eight active divisions in Europe, a powerful force of jet aircraft, and some 350 jet airfields, the NATO powers possess a defensive shield deemed sufficient to deter aggression.

The striking military achievement of NATO is not the only factor in its success. American aid, amounting to some 40 billions of dollars (over and above the 50 billion dollars contributed by the United States to its Allies during and after World War II), helped to bring about a remarkable economic recovery in Europe. Communism lost ground in Europe—in Italy, France, and Greece, in West Germany, and in the Scandinavian and Benelux countries. In the vast area included in the NATO sphere no external aggression has taken place. Even when critical situations emerged, as in Egypt at the end of 1956, large-scale conflicts were avoided.

Within the framework of NATO there has developed a series of regional agreements for Western European integration. On January 1, 1948, the Belgian-Dutch-Luxembourg Customs Union was established (Benelux). This was followed by the Brussels Pact of 1948, by which Great Britain, France, Belgium, Luxembourg, and the Netherlands agreed to collaborate "in economic, social, and cultural matters for collective defense." Next, sixteen Western European nations formed in 1948 the Organization for European Economic Cooperation (OEEC) to cut down import duties and to convert currencies through the European Payments Union. In 1952 the European Coal and Steel Community (ECSC) was established by France, Italy, and West Germany to provide for supranational control of a common market for steel and coal. In 1957 France, Italy, West Germany, and the Benelux countries created Euromarket to stimulate trade, and Euratom, an atomic energy pool. In 1958 Belgium, France, West Germany, Italy, Luxembourg, and the Netherlands created the European Common Market, largest single customer for agricultural products in the world.

Meanwhile, steps were taken in Europe to implement the old idea of a Pan-European Council or a United States of Europe. Ten European countries participated in a

meeting at Strasbourg; Italy, France, and Britain had eighteen delegates each in a descending scale to Luxembourg with three. The Council of Europe, organized in August, 1949, was at long last an attempt to establish a single parliament for all Europe. While its success has not been spectacular, it does give a hint of future possibilities of European union.

Historical Background of Free Europe

Free Europe is the product of a long, continuous historical development. Its ideals of liberty, equality, and fraternity did not emerge full-blown, but are instead the result of trial and error, of the interplay of historical forces for centuries. The intellectual revolt of the eighteenth century Enlightenment, sometimes called the Age of Reason, gave ideology and goal to modern Western Europe and through it to the United States.

The Age of Reason was one of the few movements in history that brought an important new outlook upon existence and prepared the way for new and untried experiments. The rationalists opened a new world perspective. There was a climate

in which accepted systems of belief and conduct could be challenged. Their emphasis upon freedom of expression drove from the minds of men the crippling fear of being burned at the stake. Their regard for the natural rights of the individual was something novel and precious in human history.

From the Age of Reason emerged the twin forces of democracy and liberalism. Democracy, from *dēmos* (the people) and *kratein* (to rule) was germinated in the constitutional development of England, and its theory was disseminated by the French. Appearing in its modern form in the years from 1789 to 1815, it survived a struggle against reaction between 1815 and 1848, and thereafter grew in importance.

The concomitant force was liberalism, a spirit of "live and let live," of tolerance and understanding of other peoples.

Added to these historical forces was the appearance of nationalism. As the international Church lost its temporal power, national states tended to become more closely bound units, each possessing its own language, traditions, and culture. It was this spirit that made the French Revolution possible and successful. From France it spread to the corners of Europe.

FRANCE AND FRENCH UNION

Contemporary France

ON JUNE 1, 1958, the French National Assembly by a vote of 329 to 224 voted to invest General Charles de Gaulle, leader of the wartime French liberation movement, as Premier of France. De Gaulle returned to power twelve years after renouncing the Provisional Presidency and at a moment when France faced the threat of civil war. Immediately before he became Premier he set his terms in a seven-minute speech:

1. Six months of uninterrupted rule by decree without interference from Parliament;
2. Immediate action to reform the Constitution to permit a popular referendum on reforms to produce a strong executive and "separate and balanced powers";
3. Authority to submit to a referendum reforms which would replace the centralized French Union with a new confederation within which the overseas territories would be granted local autonomy approaching the status of independence.

The investiture of General de Gaulle was a major new step in French history.

While pledged to use only peaceful constitutional means, his government was certain to transform the Fourth French Republic* from a parliamentary democracy to a Presidential one with a strong executive and balanced powers.

Designation of General de Gaulle as French Premier came as a climax to one of the most serious crises in French history. Cabinets fell regularly and the country was without leadership at critical moments. On the left, the Communists took advantage of the chaos to advance their cause, while on the right General de Gaulle waited in the wings, having announced his willingness to take over, but only with authority to end the interminable squabbles he attributed to the na-

* The First Republic of France was proclaimed on September 21, 1792, during the French Revolution, and was ended by Napoleonic coup d'état on November 7, 1799. The Second French Republic began on December 10, 1848, when Prince Louis Napoleon was elected President, and ended when he made himself Napoleon III on December 2, 1852. The Third French Republic was set up on September 4, 1870, after the defeat of France at Sedan in the Franco-Prussian War. It lasted until June, 1940, when Marshal Pétain, hero of World War I, established the Vichy Government. The Fourth French Republic was established provisionally on November 7, 1944, under General de Gaulle, then leader of the Free French movement. Its formal existence was proclaimed on December 24, 1946.

lon's loose political structure. The glory that once was France had gradually lost its economic base as financial problems piled up. Equally disturbing was the fact that the French were caught between an empire they were unwilling to give up and a brutal war in Algeria.

The problems faced by de Gaulle had been piling up since the end of World War I. That conflict left France confused, discouraged, and disunited. The old malady of short-lived cabinets, traditional in all the French Republics, reappeared in even more aggravating form. No cabinet enjoyed the support of the entire nation. France had thirteen governments from her liberation in 1945 to March, 1952, and twenty-five governments from 1945 to May, 1958. The country was split three ways: a social democratic France, a communist France (though Communists were excluded from the government after April 30, 1947), and conservative France.

General Charles de Gaulle refused to accept any of these three parties. Maintaining that he was above parties, he launched a movement known as *Réassemblement du peuple Français* (Reunion of the French people), which demanded a strong France under a strong leader. Still another movement was known as "The Third Force," a loose combination of Socialist groups acting in collaboration with the MRP (*Mouvement Republicain Populaire*), a Roman Catholic faction opposed both to the Communists and de Gaulle. The struggle between these differing political concepts was furious and futile.

Crisis of May, 1958

Exasperations long fermenting came to a head in May, 1958, when the Algerian situation exploded. Some 30,000 French *colons*, driven by fury and fearful that the French government might abandon them, surged into the streets of Algiers shouting "The army to power!" and "*Vive de Gaulle!*" Army officers in Algeria, disgusted by what they believed to be political restrictions placed by Parisian politicians on a full-out colonial defense, organized a junta, which they called the Committee of Public Safety, and in effect established that was an illegal, insurrectionist government. The French Army in Algeria was not a revolutionary army in the Fascist, Hitlerian, or Franco sense, but rather an army of patriots frustrated by the cynical do-nothing policy of the squabbling members of the Assembly in Paris. The revolt was similar to those in the days of the Roman Empire, when army leaders in the provinces took power and waited for Rome to collapse of its own weakness.

In the background was the figure of General de Gaulle. He issued an ultimatum

during the Algerian crisis: France must turn its back on its outmoded system of parliamentary supremacy and accept a strong executive with power to make policy without interference from the politicians of the National Assembly. "For twelve years," he said, "France, at grips with problems too harsh for the regime of political parties, has pursued a disastrous course. . . . Today, in the face of troubles that again engulf the country, it should be known that I am ready to take over the powers of the republic." To millions of Frenchmen and one-quarter of France's Parliament who voted Communist this was the voice of Fascism. To his supporters de Gaulle was no dictator: "He represents the best of France and he is France."

The crisis that led to de Gaulle's premiership was the outcome of France's form of government, a government in which no single group could ever attain enough power to implement a consistent long-term policy. There was a multiplicity of political parties. The Cabinet was composed of various groups and was supported by a coalition known as a bloc.

Even before de Gaulle there had been demands for sweeping constitutional reform to shore up the parliamentary regime against assaults from either Right or Left. There were calls for a stronger executive power, more power for the Council of the Republic, and the formation of a national union government excluding Communists.

A complicating factor was the French economic dilemma. A degree of economic and industrial recovery had been achieved when Marshall Aid money began to flow into France from 1948 to 1951, but economic difficulties remained grave and persistent. Much of this may be attributed to the peculiar nature of the French economic system, which has not kept pace with that of other industrialized nations. The majority of the French people are engaged in agriculture. The towns are small and inhabited mainly by shopkeepers and artisans. The small peasant proprietor is an important cog in the economic wheel. Some of the larger estates are cultivated by tenants. There are still relics of the *métayage* system, by which the owner of the land provides the buildings, animals, and machinery, and the peasant, the labor. French industries remained largely in the luxury class—silk, wines, perfumes, and the tourist trade, all of which suffer in periods of recession or depression. Equipment and methods in factories and mines are obsolete and old-fashioned. Both management and labor object strenuously to modernization of equipment and standardization of techniques. French citizens are understandably depressed by the spectacle of their long-time opponents across

the Rhine, the Germans, surging to prosperity within a short decade after World War II.

The situation was aggravated by inflation. Prices remained high and wages were far behind. Governmental expenditure always exceeded income. The economy was further stifled by the traditional French reluctance to pay income taxes, as a result of which the government was forced to resort to the imposition of indirect taxes to raise revenue. The government took over a whole series of burdens which it was unable to counterbalance by taxes or loans. Both state and people lived above their means.

Added to the factors contributing to the economic decline was the severe drain of retaining the French empire. The fighting in Indo-China and elsewhere in the French Union, especially in North Africa, depleted the French treasury and cost a heavy loss of life. The cost of rearmament under NATO was another drain. In 1952, during the forty-two days of the Edgar Faure government, spending exceeded revenue by some \$2.8 million a day. When the Premier tried to finance the rearmament program by increasing taxes 15%, the National Assembly voted him down 309 to 283.

French Position in West

Equally as bleak were the distressing social conditions. Housing in France remained among the worst in Western Europe. Tenants insisted upon retaining fixed rents established long before World War I. Landlords refused to make repairs as long as rents remained at fixed low levels, as a result of which there was little incentive to build new units.

France was the birthplace of Rousseau's idea of popular sovereignty and exaltation of the individual. But Frenchmen tended to carry the concept of individualism to such an extreme in political, social, and economic affairs that the very foundation of the nation was threatened with collapse. For the Communists this was made-to-order chaos and an inviting road to eventual power. For de Gaulle it was a challenge to transform the French way of life before it was too late.

The deepening French problems—political chaos, financial instability, and labor strife—caused great concern among the nations of the Free World. France is indispensable to the Allies' position in Western Europe. Many constructive enterprises set into motion by the West were blocked by the continuing French crisis. French troops and NATO bases on French soil form an important part of the West's defense system, and NATO's central defenses

in Europe were weakened by the transfer of the French Army from the Rhine to North Africa. France is a key member of the European Common Market, the Coal and Steel Community, and the European Atomic Energy Community. The European Payments Union, which functions as a clearing house for European trade, was weakened by France's unstable economy. The effort to maintain a Free Trade area of 290 million people in Western Europe was hampered by France's insistence upon high import duties.

The Algerian problem, especially, posed a frustrating question for American foreign policy. For more than three years the United States, long the traditional ally of France, accepted the idea that revolt-torn Algeria was just another French province, like Brittany or Normandy, juridically a part of metropolitan France. But as the Algerian war threatened to engulf all North Africa, American foreign policy began to take the view that the fighting was no longer a concern only of the French. Anglo-American good offices missions and a private "friendly letter" from President Eisenhower were of no avail. Blazing with fury at "American interference" in French affairs, the National Assembly in April 1958, threw Félix Gaillard, France's twenty-fourth Premier since the end of the war, out of office by a vote of 321 to 255.

France's relations with her allies were brought to the breaking point. Added vigor was given to the anti-Western campaign of President Nasser of the United Arab Republic. Meanwhile, the Soviet Union made political capital out of the Algerian war by exploiting the term "colonialism" and portraying it to the world as an example of "expiring Western imperialism."

In this unfortunate situation there was a tendency among the French public to blame the Americans for France's troubles. It was widely believed in France that "when the Americans let the French and British down at Suez" (the British-French invasion of Suez began in November 1956), "it set off the whole North African situation." Anti-Americanism became the bond between Communists and far-rightists, both dedicated to ending the democratic system in France. General de Gaulle, before assuming power, criticized both the American leadership of NATO and what he asserted was the French government's slavish acceptance of it, but there were indications that his position vis-à-vis both the United States and NATO softened once he had assumed the reins of power.

How can we explain the dilemma of contemporary France? The psychological temper of the French was conditioned by a series of physical and mental shocks since 1914. In World War I, France lost more than

million of her young men. She was one of those "victor nations" that lost the peace. She desperately sought security by constructing the Maginot Line and by seeking allies wherever she could find them. Within two decades the Nazi Fuehrer was on the march, and in 1940 France was subjected to one of the most humiliating defeats in her history.

These were damaging blows to a great and gifted people, to whom the Free World owes much of its way of life. After having lost the cream of their youth in two World Wars, the French are in no mood to permit the liquidation of their empire or to accept the status of a second-rate power. Nor do they want any outside interference in their domestic affairs. Under the leadership of de Gaulle the French hope to recover that prestige that marked them as one of the great powers of the world.

Historical Background

France, the Gaul of ancient times, began its history as France, a separate nation, with the Treaty of Verdun (843), by which the territories roughly comprising what are today France, Germany, and Italy were divided among Charlemagne's three grandsons. Caesar conquered part of Gaul in 52-51 B.C. and the Franks overran it in the fifth century A.D. The first of the Capetians, Hugh Capet (987-996) ruled over the principality of the Île-de-France, from which the Capetian domain was gradually expanded by conquest, purchase, marriage, inheritance, and forfeiture. The task of breaking English power in France was begun by Philip II Augustus (1180-1223) and continued in a long series of conflicts called the Hundred Years' War, 1338-1453. Beginning as a feudal conflict between French kings and the English Angevin house, this strife ended as a national war, with France emerging as a modern centralized national state. The English had won at Crécy in 1346 and at Agincourt in 1415 but were defeated at Orléans in 1429 by the French under Joan of Arc.

Relics of half-overthrown medievalism still survived in eighteenth-century France. Louis XVI (1774-1792) was unable to solve the accumulated crises. The Old Regime, with its autocratic monarch and its privileged nobility, was an outworn society ready to collapse under the impact of revolution. The French Revolution beginning in 1789 resulted from lack of intelligent government, lack of political liberty, an arbitrary system of taxation, survival of medieval abuses, economic evils, and the ideas of the intellectual reformers of the Age of Reason. It was a dramatic, bloody fair which kept France in turmoil for years.

Napoleon Bonaparte gave France a short period of glory and then the humiliation of a stunning defeat. Napoleon hardened the changes that had been brought about by the French Revolution and made some of them permanent before the forces of reaction set in; he spread revolutionary reforms to conquered German and Italian territories; nourished the growth of nationalism; and consolidated the Industrial Revolution in France.

The Congress of Vienna (1815), called to remake the map of Europe on the basis of "legitimacy" and "compensations" after the downfall of Napoleon, restored the Bourbons to the throne. Louis Philippe abdicated and fled to England at the start of the Revolution of 1848, and the Second French Republic was established.

Taking advantage of a factional split, Prince Louis Napoleon assumed control of France in the coup d'état of 1851. A year later, on December 2, 1852, he proclaimed himself Napoleon III, Emperor of the French. He founded his Second French Empire on nationalism, militarism, and imperialism. His opposition to the national unification of Germany collided head-on with Bismarck's plans. The result was the Franco-Prussian War (1870-71). Napoleon III was captured at Sedan, and the Second Empire collapsed in ruins.

Reconstruction after the Franco-Prussian War was rapid, with reorganization of the army and economic and social reforms, and a new France emerged from World War I as the dominant power on the Continent. But four years of hostile occupation and the fires of war had reduced the once-thriving area of Northeast France to ruins. The Third French Republic was plagued by political instability and economic chaos.

From 1919 on, the aim of French foreign policy was to maintain German weakness by a system of military alliances isolating Germany. The rise of Hitler and the establishment of the Nazi dictatorship meant the failure of France's foreign policy. On June 5, 1940, the mechanized Nazi troops attacked the French. As the German armies drew close to Paris, Italy declared war on France and England. The Germans marched into undefended Paris, and three days later Marshal Pétain, head of the French government then at Bordeaux, asked for an armistice. It was granted on June 22, 1940, and the French armies surrendered. Flooded with Nazi agents, France was betrayed as well as defeated. France was split into occupied and unoccupied zones. The unoccupied portion, Vichy France, became a totalitarian state with Marshal Pétain as Chief of State.

France was liberated by the Allied armies in September, 1944. The French Com-

mittee of National Liberation, formed in Algiers in 1943, established a provisional government with General de Gaulle as President of Council. De Gaulle, dissatisfied with the powers assigned to him, resigned on November 13, 1946. A new constitution, establishing the Fourth French Republic, was made effective on December 24, 1946.

The Constitution of 1946 provided for a Parliament, consisting of a National Assembly of Deputies, whose 627 members were elected for five years by direct universal suffrage, and a Council of the Republic, whose 320 members were elected by a complicated indirect procedure. The dominant body was the Assembly, with the Council having only advisory and delaying powers. The President was to be elected by the two houses for a seven-year term, but could be re-elected only once. The President was the head of the French Union. The President's choice for Premier and the Premier's selection of Cabinet members were subject to ratification by the Assembly. The President could not dissolve the Assembly. All ministers were responsible to the Assembly.

French Union

UNLIKE the Belgians and the British, the French before 1939 developed a precise theory of colonial rule to which they gave the name *assimilation*. The aim was not, as in the British colonies, to develop self-government in the colonies in a loose relation with the mother country, but rather to integrate the overseas possessions with France. Let others allow the natives to develop their own indigenous culture. The ultimate purpose was to make Frenchmen out of Africans, Polynesians, and Indo-Chinese. After all, was not the culture of France "our greatest gift to the world"?

Application of the theory of assimilation was not crowned with success. The French found it difficult to absorb millions of primitive Africans and Asians into French culture. Accordingly, in the closing years of the nineteenth century they used a new approach to which they gave the name *association*. They decided to educate a small élite of natives who would be associated with French officials in bringing Western culture to the masses. The élite turned out to be a small group with little or no effect upon the mass population of the colonies. The result was inevitable—in politics, economics, and social life the colonies were either neglected or exploited for French benefit.

The Constitution of 1946 established the French Union, consisting of France's over-

De Gaulle's 1958 Constitution for the Fifth French Republic called for a vastly increased executive power. The President, instead of a ceremonial figurehead selected by Parliament, is to be elected for seven years by an "electoral college" comprised of Parliament, local governmental councils, and the overseas assemblies. The executive names the Premier; negotiates and ratifies international treaties; can dissolve Parliament (after one year); and rules by decree in national emergencies.

The Premier is, in effect, the President's chief executive, and is largely responsible to the President. Ministers cannot hold parliamentary seats; thus, as in the United States, executive and legislative powers are separated. The Assembly votes on only specified major subjects, such as budget, social welfare, education, while all other matters are handled by government decree; it sits a maximum of five and one-half months yearly. Government overthrow is obligatory only on a vote of censure by an absolute majority.

France's 45 million voters voted on the reform constitution on September 28, 1958. The result: overwhelmingly in favor.

seas territories and associated states in Africa, Asia, Oceania, and the Western Hemisphere. The Union comprised some four and a half million square miles and a population of more than seventy millions. It was divided into ninety-eight major Départements (ninety in Metropolitan France, four in Algeria [sub-divided into twelve], and four overseas—Martinique, Guadeloupe, French Guiana, and Réunion). The four northern Départements of Algeria—Algiers, Oran, Constantine, and Bône—were regarded by the French as by French *colons* in Algeria as an organic part of France, inseparable from it, and depending upon it for its existence.

The Overseas Départements were represented in the National Assembly by seventy-five deputies and in the Council of the Republic by sixty-five. At the head of each Overseas Département was a Préfet (Governor) and an elected General Council. The Constitution of 1946 provided for the formation of a High Council, consisting of members nominated by the French Government and the overseas territories and associated states, and an Assembly of the French Union, consisting of 240 delegates, 120 elected by the French Parliament, seventy-five by the territorial assemblies overseas, and forty-five by the associated states.

Despite this careful organization a large part of the French Union was either in

state of revolt or in a mood verging on revolt. French public opinion steadily resisted the granting of independence to the colonies, on the ground that if France did not retain her rank among the imperial powers she would sink to the status of a second- or third-rate nation. The French persistently declined to withdraw of their own accord and refused to recognize the force of the passion for independence that had seized the peoples of their empire. To them the French Union was a kind of solar system with the French Republic as the sun and the members of the Union revolving around it. "*L'Empire est mort. Vive l'Union Française!*" ("The Empire is dead. Long Live the French Union!").

For centuries one of the world's great Empires, France has already lost portions of her empire. Vietnam, one of the three former French Indo-Chinese Associated States, broke away from France in 1954, the northern zone twenty-nine provinces of North Vietnam—Annam) went to the Communists, while the Southern zone (South Vietnam) was proclaimed a republic in 1955. Cambodia, the second of the three former French Indo-Chinese states, declared its independence as a constitutional monarchy on September 25, 1955. The third state, Laos, became an independent sovereign state within the French Union by the treaty of July 19, 1949.

France practically ended her protectorate over Morocco in March, 1956. In the same month Tunisia was granted full independence and "interdependence" with France in the French Union. Meanwhile unrest and agitation erupted into violence in other portions of the French Union, especially in Algeria.

The new 1958 Constitution of the Fifth French Republic changed the status of the overseas territories in the French Union. Previously, they were granted limited internal self-government. Now there was given the choice of (1) remaining territories; (2) becoming Départements (states) of France on an equal basis with those inside France; or (3) becoming members of a new French federation with limited executive and legislative powers exercised through their representatives in the Senate.

Algeria

Algeria (846,124 square miles) is on the northern coast of Africa and extends for some 650 miles along the Mediterranean between Morocco on the west and Tunisia on the east. Of its population of 9,531,000 (1954) approximately 86% is native (Berber and Arabs), 12% French, and 2% other European.

Political crisis in Algeria brought the Fourth French Republic to the gravest hour of its existence and helped bring about the accession of General de Gaulle to power. Inflamed by Arab nationalism, the restive natives of Algeria demanded that they be allowed to follow Morocco and Tunisia to complete independence.

Hoping to satisfy Algerian demands, the French Parliament in 1947 gave Moslems the right to send deputies to the National Assembly in Paris. Continued unrest, however, led the French to detach troops from their NATO forces and send them to Algeria. When this proved to be insufficient, the French dispatched thousands of additional reservists to the rebellious state, where guerrilla tactics eventually tied down nearly a half million troops.

Early in 1958 the French Parliament enacted a reform bill for Algeria, establishing regional autonomy along geographic and ethnic lines and providing for voting equality between Moslems and non-Moslems. This did not satisfy the demand for independence. Arms from sympathizers in Morocco and Tunisia flowed into Algeria. The insurrection rapidly assumed the gravity of civil war, which was fought with cruelty on both sides. In February, 1958, French airmen bombed a Tunisian border village for the reason that Tunisia was supplying Algerian rebels with arms, and killed seventy-nine persons. Tunisia protested to the U.N. Security Council.

The movement to bring de Gaulle to the premiership commenced in Algeria when there were brought together under one banner the Army, the extremist European colony, and sections of the Moslem population. Leaders of the Army, in a virtual act of secession, set up a "Committee of Public Safety" and demanded that de Gaulle be given power. He got it.

As ancient Numidia, Algeria became a Roman colony at the close of the Punic Wars (145 B.C.). Conquered by the Vandals about 440 A.D., it descended from a high state of prosperity and civilization to virtual barbarism, from which it partially recovered after invasion by the Moslems about 650 A.D. In 1492 the Moors and Jews, who had been expelled from Spain, settled in Algeria. Falling under Turkish control in 1518, Algiers became for three centuries the headquarters of the Barbary pirates who preyed on Mediterranean commerce. The French took Algiers in 1830.

By the revised statute of August, 1947, Algeria had an elected Legislative Assembly, consisting of two colleges of sixty members each, and a Council which assisted the Governor-General. She was rep-

resented in the French National Assembly and was one of the ten military districts of France.

For other areas in the French Union see pp. 736 to 741 and under Laos, pp. 757 to 758.

BONN REPUBLIC

The Federal Republic of West Germany

GERMANY once again poses a critical problem area for the contemporary Free World. With a population of 50 millions in West Germany (and another 16,500,000 in East Germany which may gravitate to one side or the other), Germany is situated in the heart of Europe in a potential no-man's-land between East and West. Much depends upon these crucial questions. Is Germany at another turning point in her history? Will she be able to abandon her past drives for world domination and merge successfully with Free Europe, or will she be tempted once again to seek political and military power by playing off West and East against each other?

At the moment West Germany, under the leadership of Chancellor Dr. Konrad Adenauer, leader of the Christian Democrats, has adhered strongly to the policy of maintaining an alliance with the Free World, even though this might mean postponement of German unification. This position has been held despite the Russian aim of creating a situation favorable to a future Soviet-German rapprochement as those at Rapallo (1922) and the Stalin-Hitler Pact (1939). On the outcome of this struggle over Germany between West and East depends the future not only of Europe but of the world.

At the end of World War II Germany was laid waste as if by a gigantic scythe. The German people, stunned and bewildered, seemed unable to comprehend the extent of the disaster. At Potsdam, the triumphant Allies divided Germany into four zones of control—American, British, Russian, and French, cutting across the old state and provincial boundaries. Greater Berlin was split into four similar sectors forming a fifth zone. The occupying authorities began to denazify, demilitarize, and democratize Germany, a task considerably weakened by increasing friction between the Soviet Union and the West.

Proclaimed in 1949

The Federal Republic of West Germany, with its capital at Bonn, was proclaimed on May 23, 1949. Of some 432 deputies to the Bonn parliament, the Communists elected but fifteen. Dr. Theodor Heuss, Free Democrat, was chosen first President on

September 12, 1949, and re-elected on July 17, 1954. The first Chancellor, nominated by the President and subject to the approval of the *Bundestag*, was Dr. Konrad Adenauer (named again on October 9, 1953).

The Constitution of the German Federal Republic embodies the best features of the French Declaration of the Rights of Man, the first ten amendments to the American Constitution, the British Bill of Rights, and the Weimar Constitution. It was adopted by the Parliamentary Council on May 8, 1949, and approved by the High Commissioners on May 12, 1949. It provides for a Federal President, chosen for a term of five years by a Federal Convention. The Parliament consists of two legislative houses. The upper house, the *Bundesrat*, represents and is appointed by the governments of the *Länder*, or states. The lower house, the *Bundestag*, is elected for a period of four years by universal suffrage. The Chancellor, or Prime Minister, is appointed by the President, though the *Bundestag* reserves the right to elect a Chancellor of its own preference. Each of the ten constituent *Länder* is required to have a republican form of government with an assembly chosen by the people.

In 1954 the United States, United Kingdom, and France agreed to maintain troops in West Germany, not as occupation troops but as a means of ensuring the defense of the Free World. The German Federal armed forces were not to exceed twelve divisions, a tactical air force of some 1,350 aircraft, and light coastal defense and escort vessels. These forces, as well as all other NATO forces in Europe, are under the authority of the Supreme Allied Commander, Europe. In 1956 the *Bundestag* legalized national armament, but clearly specified that there would be civilian control over the military.

On May 26, 1952, the Bonn Republic was integrated into the North Atlantic Alliance and entered the free community of nations as an equal partner. It is a member of the Council of Europe, the European Coal and Steel Community, UNESCO, and the Western European Union. It became officially independent on May 5, 1955. Under Dr. Adenauer's guidance, West Germany allied itself with the western Free World in the cold war with communism.

Startling Economy Recovery

West Germany, within a decade after its defeat in World War II, attained an economic recovery almost without parallel in history. Unemployment was reduced; the currency reserve rose; production increased; and public finances, showing surpluses despite tax reductions, became the envy of Europe. To some extent this remarkable phenomenon was due to American aid of some \$3.4 billion, as well as hard work. But other countries have worked zealously and received American aid with far less spectacular results. The recovery of West Germany is a classic case of the free market economy operating successfully with a limited number of strategically selected controls, and greatly helped by political and economic events outside Germany. It stands in direct contrast to the economy of East Germany, which has sunk to a much lower level.

West Germany is not self-sustaining in food, especially since the loss of the agricultural areas east of the Oder-Neisse, now under Polish control, which once contained a quarter of Germany's arable land. German industry has forged ahead by leaps and bounds. By 1953 she had achieved an industrial output 59% higher than in 1936. From 1951 to 1956 West German exports tripled in value, closing in on second-place Britain and first-place United States. German car exports increased from \$54 million in 1950 to \$331 million in 1955. The German *Volkswagen* began to conquer the small-car markets of the world. Complete assembly plants were set up all over the world. West Germany now sells more bicycles in the United States than Britain, which once had a virtual monopoly on foreign bicycle sales. West Germany pushed ahead of Britain for the No. 1 trading position in South America. Her chemical exports passed those of Britain for the first time.

Public opinion in West Germany supports the governmental policy of paying reparations to Israel to expiate for the barbarous torture of the Jews during the Nazi era.

At the moment West German leadership and people are strongly oriented toward the United States and its foreign policy of containment of communism. They well remember Lenin's dictum that "Who controls Germany controls Europe." They fear the colossus to the East. They know well how their brothers in East Germany suffer under the communist yoke and they want none of it. The Communists, who had won 66% of the vote in 1932, had only 2.2% of the vote in 1953, and are now suppressed.

Present-day Germans realize that American monetary aid rescued West Germany from becoming an economic slum and a pauperized country in the heart of Europe. They are grateful for American assistance during the attempted Russian blockade in 1948, when American cargo planes in a large-scale airlift landed every three minutes, day and night, at the Tempelhof Airdrome in West Berlin. During a blockade of 320 days "Operation Vittles" moved 1,592,787 tons of supplies into West Berlin. The Soviet Government thus lost a desperate effort to dislodge the Western Allies.

An indication of the confidence placed in West Germany by the Atlantic Pact nations came in May, 1958, when Lebanon, wedged in between Israel and Syria, was torn by pro-Nasser rioting. A fleet of U. S. Air Force transport planes was immediately dispatched to the Rhine-Main Air Base at Frankfurt for use if needed in evacuating American citizens from Lebanon.

There is strong support for the policy of maintaining the association of West Germany with the Atlantic Treaty. Winston Churchill said: "I myself have never seen the disadvantage of making friends with your enemy when the war is over, with all that that implies in co-operation against an outside menace." Former Ambassador James B. Conant asserted that "we in the United States have in our new ally a powerful and reliable partner for the trying days that lie ahead."

On the other hand, other observers believe that the possibility always exists that West Germany as a matter of *Realpolitik* may come to terms with Soviet Russia, especially if the Adenauer regime comes to an end. The fate of Free Europe and the Free World hinges to a large extent on the future course taken by the German people.

The Historical Background

For a thousand years the Germans have sought for some golden mean between centralism and anarchy. Among the frustrating dualisms of German history were the permanent division between Protestantism and Catholicism, the struggle between Austria and Prussia, and the schism between Western constitutionalism and Eastern authoritarianism. So striking were the divisions of German history that until 1871 there was in fact no political unit called "Germany." One should speak of the "Germanies" before that date.

In this respect Germany has never been a typical European nation. The twin currents of liberalism and democracy were overwhelmed in the Germanies and in Germany by the forces of nationalism and militarism.

In the words of a British historian, A. J. P. Taylor: "The history of the Germans is a history of extremes. It contains everything except moderation, . . . and the Germans have experienced everything except normality."

For generations the Western world has been puzzled by some provoking questions about the Germans. What kind of people are they? How did they get that way? Why is it that they alternate between Goethe and Hitler, between the extremes of high ethical and artistic endeavor and the most abysmal cruelty and ruthlessness? The answers would seem to lie in the nature of German national character, which is never innate nor permanent but rather the result of historical and geographical conditions.

The determining factor in German history was Prussia—the state of soldiers and officials. Scarcely belonging to Germany, either geographically or culturally, Prussia expanded from her small areas in northeastern Germany and gradually impressed upon the remainder of the Germanies a pattern of tradition and ideals that came to be recognized as universally German. Among such traditions is the German respect for power, the *Obrigkeit*, for the uniform, the title, and office, resulting in a systematic regimentation going straight down through the tiers of the social order. Added to the rigidly formalistic and hierarchical occupational system were the strongly authoritarian character of the father-son relationship and the sharply subordinated position of women. These traits of obedience and discipline have shown an extraordinary endurance in Germany.

The contention that Hitlerism was a bolt out of the heavens, a "catastrophe" that suddenly appeared to plague the Germans, is inaccurate and untenable. The roots of Hitlerism lay deep in German history for the last century and a half. Behind it was a pattern of thinking tempered by nationalism, romanticism, and historicism. The Germans who were shocked and amazed by the excesses of Hitlerism never realized that it was the logical outcome of a long and dangerous tradition. The Nazi movement, in reality, was stale and unoriginal. There was little new in it except the fanatical genocide used to implement its ideology.

The Era of Bismarck

The architect of German unity was Otto von Bismarck (1815-1898), a conservative, monarchist, and militaristic Prussian Junker who had no use for "empty phrase-making and constitutions." From 1862 until his retirement in 1890 he

dominated not only the German but also the entire European scene. He unified all Germany in a series of three wars, against Denmark (1864), Austria (1866), and France (1870-1871). Historians differ on the matter of responsibility for these wars, but many believe that they were instigated and promoted by Bismarck in his zeal to obtain national unity through "blood-and-iron."

On January 18, 1871, King William I of Prussia was proclaimed William I, German Emperor, at the Hall of Mirrors, Versailles. The North German Confederation, created in 1867, was abolished, and the new Second German Reich, consisting of both North and South German states, was born. As King of Prussia, the German Emperor exercised what amounted to dictatorial control over all Germany. With a powerful army, an efficient bureaucracy, and a loyal bourgeoisie, Chancellor Bismarck consolidated a powerful centralized state under Prussian domination.

William II (1888-1918) dismissed Bismarck in 1890 and embarked upon a "New Course" stressing an intensified colonialism and a powerful navy. His chaotic foreign policy gradually culminated in the diplomatic isolation of Germany and the nearly fatal outcome of World War I.

The Second German Empire collapsed following the defeat of the German armies in 1918, the naval mutiny at Kiel, and the flight of William II to Holland. The Social Democrats, led by Ebert and Scheidemann, crushed the Communists and established a moderate republic. The Weimar Constitution of 1919 provided for a President to be elected for seven years by direct universal suffrage; a bicameral legislature, consisting of the *Reichsrat*, representing the states, and the *Reichstag*, representing the people. It contained a model Bill of Rights. Unfortunately, the value of this Constitution was weakened by including a provision (Article 48) enabling the President to rule by decree.

The Weimar Republic was neither loved, wanted, nor understood by the mass of Germans. They regarded it as a child of defeat, imposed upon a Germany whose legitimate aspirations to world leadership had been thwarted by a world conspiracy. Schooled in autocracy, obedience, and leadership, the people apparently were not ready for an advanced democratic form of government. Added to this were a crippling currency debacle, a tremendous burden of reparations, and acute economic distress.

Capital of Germany's misery was made by Adolf Hitler (1889-1945), a former Austrian war veteran, a fanatical hypochondriac, a remarkable orator, and a passionate nationalist. He aroused all the elements of

discontent by promising a Greater Germany, the abrogation of the Treaty of Versailles, the restoration of Germany's lost colonies, and the destruction of the Jews. When the Social Democrats and the Communists refused to combine against the Nazi threat, they sealed the doom of the Weimar Republic. President von Hindenburg appointed Hitler as Chancellor on January 30, 1933.

Hitler in power proceeded to obliterate democracy and fashion a totalitarian state. A barbarous campaign was initiated against the Jews. Communists, Social Democrats, Liberals, and Catholics alike felt the whip of the Nazi lash. Religion was subordinated to the state. In a sweeping program of centralization, Hitler abolished all other political parties, organized the youth movement under Nazi leadership, assumed control of the armed forces,

and subordinated all cultural activities to Nazi ideology. Civil liberties were abolished; schools were transformed into agencies for propaganda; and women were returned to the kitchen. All German citizens were imbued with ideas of glorification of the Leader (*Fuehrer*), worship of the Fatherland, intolerant racial prejudice, blind obedience, hatred for all enemies, and zest for war. The economic life of the nation was brought into harmony with the Nazi principle of self-sufficiency. In foreign affairs Hitler's program of expansionism led straight to World War II.

Hitler's wild dream of world mastery was shattered on the rocks of British, Russian, and American resistance. Germany lost 3,350,000 battle dead and spent \$272,900,000,000 in the most costly conflict in history. (For further information on Hitler see p. 741).

ITALY

Despite a strong and persistent Communist opposition, as well as minor opposition from small neo-fascist movements, the Italian Republic has pursued a policy of co-operation with the Free World. Its foreign policy is in line with NATO, of which it is a member. In return the Western nations have helped democratic Italy recover from the gravest sort of economic problems.

Following the overthrow of Mussolini's Fascist dictatorship and the armistice with the Allies (September 3, 1943), Italy joined the war against Germany as a co-belligerent. In May, 1946, King Victor Emmanuel III left the country after installing his son as King Humbert II. But a provisional coalition government held a popular plebiscite in June, 1946, as a result of which the Italians voted for a republic. King Humbert abdicated and followed his father into exile. The treaty of peace signed with the Allies on February 10, 1947, deprived Italy of her colonies and of Trieste. Although reluctantly ratifying the humiliating treaty, Italians strongly resented being classified as an ex-enemy people and felt that the Allies had let them down at the peace conference. In 1951 the United States and ten other Western nations eased the terms of the peace treaty by repudiating restrictions on armaments and by enabling Italy to exercise a trusteeship over its former colony of Italian Somaliland. In 1954 the Adriatic port of Trieste was returned to Italy. In 1955 Italy was accepted as a member of the United Nations.

Meanwhile, the Italian Republic was

confronted with a chaotic political situation. There was bitter strife between Christian (Catholic) Democrats, Liberals, Socialists, and Communists. The outstanding political figure during this period was Alcide de Gasperi, leader of the Christian Democrats and most adroit among the postwar statesmen. De Gasperi was helped considerably by the active intervention of the Catholic Church on his behalf. In the first general election under the new constitution, held in April, 1948, de Gasperi and the Christian Democrats won 306 of the 574 seats in the Chamber of Deputies, while the Popular Front of Communists and left-wing Socialists polled 182 seats.

In the general elections held in May, 1958, the Western Center parties won a comfortable majority of twenty seats in the Senate and a fifty-two-seat majority in the Chamber of Deputies. The popular vote percentages of the principal parties were: Christian Democrats, 42.2%; Communists, 22.7%; Left-wing Socialists, 14.2%; Neo-Fascists, 4.7%; Democratic Socialists, 4.0%; and Liberals, 3.5%. The extreme Left gained in popular votes. While the Communists picked up only a few votes, the Left-wing Socialists, their associates, gained 1.5% percentage points. This increase came despite the events in Hungary and the substantial measure of reform and prosperity achieved in Italy. But the government remains democratic and strongly Western in its orientation.

With the exception of Communist leaders, most Italian Communists reject the dominance of Moscow and regard their

vote as a reaction against fascism and a short-cut to economic betterment. In the elections the Catholic Church threatens excommunication to all those who profess communism.

The first article of the Constitution of 1947 reads: "Italy is a democratic republic founded on labor. Sovereignty belongs to the people." An article causing considerable debate was the one recognizing Catholicism as the sole state religion and incorporating the Concordat of 1929. Even the Communists supported this article on the pretext that communism is not the enemy of religion.

The President is elected for a term of seven years by Parliament in joint session with regional representatives. The President nominates the Cabinet, which is headed by the Premier, or Prime Minister. Parliament is composed of two houses: a Senate with 237 elective Senators and six appointed for life, and a Chamber of Deputies, elected by the people for a five-year term. All Italian citizens, including women over 21, are duty bound to vote.

The economy of Italy suffered heavy damage in World War II from Allied as well as Nazi bombings. Transportation facilities were wrecked, some 85% of the Italian merchant marine was destroyed, raw materials were exhausted, and there was a severe food shortage. The United States paid most of the \$450,000,000 allocated by UNRRA for food relief for Italy. It also presented to Italy twenty-nine ships. During the first year of the Marshall Plan (1948-1949), Italy was allocated \$601 million. Even greater sums were provided in later years: from April, 1948, to February, 1951, Italy under ECA received \$1,225 million.

As a result of this intensive pump-priming, Italian agricultural and industrial production gradually increased. By 1948 Italy's foreign trade reached 152% of the pre-war figure. Despite the remarkable progress in vitalizing economic life, only a beginning has been made. Agricultural production is still unable to meet the demands of the Italian people, who are increasing at the rate of some 400,000 a year. Land reforms, especially turning over large estates to the peasants, have been painfully slow. Energetic efforts are being made to close the gap between exports and imports. There are still some 2,000,000 unemployed in a working population of 21,000,000. The central problem remains: where will Italy find the tremendous sums needed for her economy once foreign aid stops?

Recent Italian experience seems to be an extension of a troubled history. In 1815 the Congress of Vienna restored the Italies to their former position of confused

disunity, like the Germanies a "geographical expression." The tyranny of the Restoration met with opposition by the *Carbonari* (charcoal burners), a secret society which demanded constitutional government and national unification. But Austrian armies crushed Italian uprisings in 1820, 1821, and 1831. In the 1830's Joseph Mazzini (1805-1872), brilliant liberal nationalist, organized the *Risorgimento* (Resurrection), which laid the foundation for Italian unity.

Disappointed Italian patriots looked to Sardinia for leadership. Count Camille di Cavour (1810-1861), Prime Minister of Sardinia in 1852 and the architect of United Italy, joined England and France in the Crimean War (1853-1856), and in 1859 helped France in a war against Austria, thereby obtaining Lombardy. By plebiscite in 1860, Modena, Parma, Tuscany, and the Romagna voted to join Sardinia. In 1860, Giuseppe Garibaldi (1807-1882) conquered Sicily and Naples and turned them over to Sardinia. Victor Emmanuel II, King of Sardinia, was proclaimed King of Italy on March 17, 1861.

United Italy was a constitutional monarchy modeled on that of England. From 1871 to 1914 it was found difficult to reconcile the interests of the industrialized north with those of the backward, agricultural south. Many thousands of discouraged Italians emigrated to the United States. Relations with the Church were strained; the Pope shut himself up in the Vatican as a voluntary prisoner in protest against the annexation of the Papal States in 1870.

Allied with Germany and Austria-Hungary in the Triple Alliance of 1882, Italy declared her neutrality upon the outbreak of World War I on the ground that Germany had embarked upon an offensive war. In 1915 Italy entered the war on the side of the Allies.

Benito Mussolini (1883-1945), a former Socialist, organized discontented Italians in 1919 into the Fascist Party "to rescue Italy from Bolshevism." After winning the battle of the streets against the Communists, the Black Shirts marched on Rome on October 27, 1922. Mussolini was made Premier. The price of Fascist victory was the breakdown of parliamentary government. Mussolini destroyed Parliament, suspended civil rights, wiped out political opposition, and transformed Italy into a dictatorship. He banned strikes, lockouts, and class warfare, and called for class discipline, absolute obedience, and "the sacrifice of the individual for society." He revised the system of taxation and finance, refunded foreign debts, and stabilized the currency; enacted high tariffs, expanded the merchant marine, and concluded pacts

with foreign countries; introduced an extensive program of public works; and banned birth control, divorce, and emigration. He resolved the Roman question by concluding on February 11, 1929, with Pope Pius XI a Treaty and Concordat, by which the absolute sovereignty of the papacy in Vatican City was recognized in exchange for papal recognition of the Kingdom of Italy. He gave his people everything but freedom. His basic slogan—"Believe, Obey, Fight."

Mussolini's foreign policy was expansionist, designed to make the Mediterranean an Italian lake (*Mare Nostrum*). His de-

signs on Corsica, Savoy, Nice, and Tunis enraged the French. In 1935 his troops invaded Ethiopia (Abyssinia) and annexed it despite stubborn resistance. In 1936 he aligned himself with Hitler in the Rome-Berlin Axis. Italian troops fought for Franco in the Spanish Civil War of 1936-1939. After the defeat of France in 1940, Mussolini joined Nazi Germany in World War II. The myth of Italian military strength was broken on the sands of Libya by British tanks and in Albania by Greek bayonets. The Italian dictator was caught and executed by partisans at Dongo on Lake Como on April 28, 1945.

Austria

Though theoretically neutral in the cold war, Austria, with its democratic institutions, is oriented toward Free Europe. Like Germany, Austria after World War II was divided into four zones (British, American, French, and Russian) by the occupying powers, but the Control Council at Vienna operated more smoothly than that at Berlin. The United States and Great Britain removed Austria from the ranks of enemy states by declaring the Austrians a "liberated" people. In June, 1951, Austria indicated her Western orientation by joining the General Agreement on Tariffs and Trade (GATT). She finally regained her independence on May 14, 1955, by a state treaty ending seventeen years of occupation, but only after long and difficult negotiations with the Russians. She was admitted to full membership in the United Nations in December, 1955.

The federal republic of Austria is composed of nine provinces, including Vienna. The President is elected by the people directly for a term of six years. The bicameral legislature consists of the *Bundesrat*, with fifty members chosen by the provincial assemblies, and the *Nationalrat*, with 165 members popularly elected. The Chancellor and his Cabinet are responsible for governmental administration.

Stripped of her industrial areas after World War I, with no outlet to the sea, with a soft currency, and a population less than that of metropolitan New York, Austria has long been dependent upon outside aid. Her economic recovery in recent years has been one of the most dramatic success stories of the post-World War II era. Much of this may be attributed to Marshall Plan aid.

The history of Austria before World

War I was closely identified with that of the Austro-Hungarian Empire and its ruling house, the Hapsburgs. The monarchy originated in a margravate founded by Charlemagne in the late eighth century. In 1252 Ottokar, King of Bohemia, gained possession of the Austrian territories, only to lose them to Rudolf of Hapsburg in 1276. In the next three centuries the Hapsburg power steadily grew until Charles V (1519-1556) ruled a vast area of Europe. In 1806, during the Napoleonic Wars, Emperor Francis I relinquished the crown of the Holy Roman Empire.

Austria emerged from the Congress of Vienna in 1815 as the dominant power on the Continent. Metternich, denouncing nationalism, liberalism, and democracy as "dangerous ideas," managed to hold the numerous ethnic groups in subjugation, but was forced to flee for his life with the outbreak of the Revolution of 1848. The *Ausgleich* of 1867 provided for a dual sovereignty embracing the empire of Austria and the kingdom of Hungary under Francis Joseph I, who ruled until 1916.

In 1919 the Austro-Hungarian Empire was dissolved by the treaties of St. Germain and Trianon. Austria was left in political chaos and economic ruin. In 1934 Chancellor Engelbert Dollfuss established a dictatorship, only to be assassinated by Nazi conspirators on July 25, 1934. He was succeeded by Kurt von Schuschnigg, whose futile effort to maintain Austria's independence ended with a bloodless Nazi occupation on March 12, 1938. The next day *Anschluss* (union) with Germany was proclaimed.

The foreign policy of the Republic of Austria today, dictated by its central European location, aims to avoid accusations of favoritism for either East or West. But public opinion appears to be pro-Free Europe and pro-American, and there is much resentment against the severe economic

concessions exacted by the U.S.S.R. as the price of its withdrawal in 1955.

BENELUX

The three Benelux countries (Belgium, the Netherlands, and Luxemburg) maintain their political independence but are united in a Customs Union established on January 1, 1948, which seeks full customs and tariff unity and eventually complete economic union. The Benelux Customs Union forms one of the five great trading areas of the world. It is regarded as a most important prop in the structure of Western European integration. The relations of the Benelux countries with the United States are cordial.

Belgium

Belgium is a constitutional monarchy consisting of nine provinces. Its bicameral legislature has a Senate, with members elected for four years, partly directly and partly indirectly, and a 212-member Chamber of Deputies directly elected for four years by proportional representation. There is universal suffrage, and those who do not vote are fined. Belgium joined the North Atlantic Alliance in April, 1949.

Belgium is one of the most highly industrialized nations in Europe due in part to its coal reserves. Its economic advance has been notable. In spring, 1958, the \$260 million Brussels World's Fair commenced a six-months run to portray the artifacts of today's technological revolution.

After the fall of Napoleon the Congress of Vienna (1815) joined the French Catholic Walloons of Belgium with the Germanic Protestant Flemings of Holland (United Provinces) to form the Kingdom of the Netherlands. The Belgians rose in revolt in 1830 and declared their independence. The Treaty of London (1831) guaranteed Belgian independence.

The invasion of Belgium by Germany in 1914 triggered the explosion of World War I. The Treaty of Versailles (1919) gave the strategic areas of Eupen, Malmédy, and Moresnet to Belgium. On February 17, 1934, King Albert was killed while mountain climbing and was succeeded by his son, Leopold III. Leopold III formally abdicated on July 16, 1951, and his son became King Baudouin.

Netherlands (Holland)

A constitutional, hereditary monarchy, with female succession in default of male heirs, Holland places executive responsibility in the ruler. The States-General consists of an upper chamber of seventy-five

members elected for six years by the provincial legislatures, and a lower chamber of 150 deputies elected directly for four years and retiring as a group. The Prime Minister holds office at the pleasure of the sovereign.

Grateful for American aid after both World Wars, Holland is one of the firmest friends of the United States in Europe or in the world. Her foreign policy is distinctly in line with the Atlantic Pact. She occupies a position in economic life far out of proportion to her size. Her ports have considerable trade both to and from the Continent. On December 27, 1949, Holland transferred her sovereignty over the former Netherlands Indies to the Republic of the United States of Indonesia.

In 1815 at the Congress of Vienna, the Austrian Netherlands (Belgium), against its will, was incorporated with Holland to form a bulwark against possible French aggression. This union lasted only until 1830. Holland prospered during the reign of William III (1849-1890). A new constitution in 1848 established a limited monarchy and representative government. The administration was reorganized, popular education promoted, and modern industry encouraged. The country took little part in European politics. When the male line of the House of Nassau became extinct in 1890, Wilhelmina succeeded to the throne, with her mother as Queen-Regent, and on her eighteenth birthday in 1898 assumed the reins of government.

During World War I, Holland maintained strict neutrality, but its overseas trade suffered heavily from German submarines and Allied blockade. In 1918, the deposed German Emperor, William II, was granted asylum in Doorn. Holland again announced her neutrality in 1939, but German troops invaded the country on May 10, 1940, destroying much of Rotterdam in a senseless air attack. On September 6, 1948, Wilhelmina abdicated upon her fiftieth anniversary as a ruler, and was succeeded by Juliana, her only child.

Luxemburg

Luxemburg is an independent grand duchy situated between France and Belgium. The current hereditary sovereign is the Grand Duchess Charlotte (b. 1896). Legislative power is vested in a fifty-two-member Chamber of Deputies, elected by universal suffrage. The executive power rests with a Minister of State and a Cabinet of at least three other ministers. The fifteen-member Council of State is chosen by the sovereign.

A part of the German Confederation in 1815, Luxemburg was guaranteed its independence and neutrality by the Treaty

of London in 1867. It was invaded and occupied by the Germans in both World Wars.

In 1948 Luxemburg joined the Western European Union, and during the same year abolished its unarmed neutrality and made military service compulsory. It signed the North Atlantic Pact in 1949. Luxemburg's military strength is negligible, but it is nevertheless firmly committed to Free Europe. Its foreign policy has been traditionally friendly to the United States.

Finland

Finland (Suomen Tasavalta), stretching 700 miles from the Gulf of Finland on the south to Soviet Petsamo, north of the Arctic Circle, occupies a special place of affection among Americans. After World War I, while larger nations defaulted on their war debts to the United States, Finland continued making her semi-annual payments. In November, 1934, Washington announced that Finland was the only country which had consistently lived up to the debt-funding agreement of 1922. From the viewpoint of American foreign policy, this attitude justified a most-favored nation treatment ever since.

The President of the Republic of Finland, chosen for six years by the Electoral College of 300 members, appoints the Cabinet. The single-chambered Diet, the *Eduskunta*, consists of 200 members popularly elected for three-year terms by proportional representation.

Only 3% of Finnish land is under cultivation. Industry has had a remarkable growth, the budget is usually balanced, and the currency is stable. The state religion is Evangelical Lutheran, but there is complete freedom of worship. The literacy rate is 99%, the highest in the world. Finland became a member of the United Nations on December 14, 1955.

At the end of the seventh century the Finns, probably of Mongolian origin, came to Finland from their Volga settlements. Their repeated raids on the Scandinavian coast impelled Eric IX, the Swedish king, to conquer the country in 1157 and bring it into contact with Western Christendom. By 1809 the whole of Finland was conquered by Alexander I of Russia, who set up Finland as a Grand Duchy.

The first period of Russification (1899-1905) resulted in a lessening of the powers of the Finnish Diet. The Russian language was made official, and the Finnish military system was superseded by the Russian. The pace of Russification was intensified from 1908 to 1914. When Russian control was weakened as a consequence of the March Revolution of 1917, the Finnish

Diet on July 20, 1917, proclaimed Finland's independence, which became complete on December 6, 1917.

When its territorial demands on Finland were rejected, the Soviet Union attacked Finland on November 30, 1939. The Finns made an amazing stand of three months. Finland finally capitulated, ceding 16,000 square miles to the U.S.S.R. Under German pressure the Finns joined the Nazis against Russia in 1941, but were defeated again, and ceded the Petsamo area to Soviet Russia.

There is understanding in the Free World for the special position Finland occupies as a western neighbor of the Soviet Union. In 1948 Finland signed a treaty of friendship and mutual assistance with the U.S.S.R. (extended in 1955 to 1975), and negotiated trade pacts with her. This concession to realism in foreign policy does not obviate the fact that Finnish public opinion is oriented toward Free Europe and especially toward friendship with the United States.

Greece

Greece, an important link in Free Europe defenses, is a constitutional monarchy, with executive power nominally vested in the King but actually controlled by a Council of Ministers under the chairmanship of the Premier. In the national elections held on May 11, 1958, the pro-Western National Radical Union Party, under former Premier Constantine Karamanlis, retained an absolute majority in Parliament, with 41% of the 3,800,000 votes and 173 of the 300 Parliament seats. But the Union of the Democratic Left, the lawful counterpart of the proscribed Communist Party, headed by Russian-born John Passalides, surprisingly bounded into second place with 24% of the votes and seventy-eight seats in Parliament.

Greece, traditionally the poorest country in Europe except for Albania, has undergone a striking postwar recovery. At the end of the war more than 1,500 villages and towns had been destroyed, hardly a road was passable, inflation was rampant, and poverty was an accepted way of life. In 1947 the U. S. Congress voted more than \$400,000,000 for Greek and Turkish rehabilitation (Truman Doctrine). American capital poured into Greece to be used to build up the feeble Greek economy. Since then industrial production has soared, five hundred Greek villages have electricity for the first time, railroads and highways have been improved vastly, and the national budget has been balanced. In the meantime, Communist guerrillas were defeated and order restored. Greece joined NATO in 1951.

After the Balkan Wars (1912-1913)

Greece obtained the island of Crete. She did not formally enter World War I until 1917 despite her treaty obligations to Serbia. On the abdication of King Constantine on June 12, 1917, former Premier Eleutherios Venizelos, who had led a revolutionary government in Crete in 1916, assumed control. After a plebiscite, a republic was established on April 13, 1924. Venizelos led an abortive uprising in 1935, following which the Greek people voted for the return of George II as King of the Hellenes. In 1936 General John Metaxas, who had become Premier, set up a dictatorship.

In 1940, at the beginning of World War II, Greece was invaded by the Italians, who were promptly thrown back into Albania. The Germans intervened and took Athens in 1941, but withdrew in 1944. The nation was terrorized by a veritable civil war between Royalists and Communists, the latter aided by satellites of the Soviet Union. A plebiscite held on September 1, 1946, resulted in the recall of George II, who died on April 1, 1947. He was succeeded by his brother Paul I.

For generations Greece, like Portugal, has maintained the friendliest relations with Great Britain. But commencing in 1955 and lasting to the present day there has been a strong anti-British reaction over the question of Cyprus, the third largest island in the Mediterranean. Cypriot demands for union with Greece, marked by terrorism, have been a major source of friction. The Greeks on Cyprus, comprising 81% of the population, and those on the mainland demand the union of Cyprus with Greece, while the Turkish minority of 18% on the island and the Turks themselves oppose it vehemently. The struggle is marked by anti-British as well as some anti-American feeling.

Ireland

At the present moment the Irish problem is comparatively quiescent. The twenty-six counties of southern Ireland form the State of Eire (pronounced Aireh). When England declared war on Germany in 1939, Ireland proclaimed her neutrality, thereby ending her Dominion status and withdrawing from the Commonwealth. The six counties of Ulster in the northeast form a separate government known as Northern Ireland which is closely bound to England. Protestant in faith, largely industrial, with many of its citizens descended from Cromwellian soldiers and Scottish business men, Northern Ireland still remains detached from the rest. The demand for Irish unity still persists in Eire and it is supported by many Americans of Irish extraction.

The President of Ireland is elected directly by the people for a term of seven years. The Prime Minister is nominated by the Chamber of Deputies. The bicameral legislature consists of a Senate (*Seanad Éireann*) of sixty members (forty-three from vocational panels, eleven by nomination of the Prime Minister, and six by the universities); and a Chamber of Deputies (*Dáil Éireann*), composed of 147 members elected by the people. The Senate may amend legislation but has no veto power.

Ireland is predominantly an agricultural country, with some 70% of its total land area devoted to agriculture. Mineral and forest resources are unimportant, but a considerable supply of peat is taken from the bogs. Elementary education is free and compulsory and is provided in state schools. At the upper levels education is privately controlled, mostly by the religious orders. The prevailing religion in the Irish Republic is Roman Catholic.

The history of the island begins with the life and career of St. Patrick, who introduced Christianity in 432 A.D. After recurrent invasions by the Northmen in the ninth to eleventh centuries, Henry II landed in Ireland in 1172, and organized the country after the Norman fashion. After bitter struggles between Norman barons and Irish chieftains, the Tudors established a despotic rule in Ireland, a policy followed by the Stuarts, Cromwell, and William III, until virtually all of Ireland was in the hands of the British (Act of Union, 1800).

Ireland faced three general problems: religious, the relations between Catholics and Protestants; economic, how to restore the land to the original Irish owners; and political, how to fashion a system of self-government.

During and after World War I political agitation for the freedom of Ireland was carried on by the Sinn Féin (We Ourselves), a nationalist party. The struggle between the Irish Republican Army and the British forces was waged with ruthlessness on both sides. In 1920 Parliament passed a Home Rule Bill providing for two parliaments, one in Belfast and another in Dublin. In 1921 Ireland was given political status as "a coequal member of the British Commonwealth." Seven centuries of British occupation came to an end.

From 1922 to 1932 the President of the Irish Free State was William Cosgrave, leader of the Sinn Féin's right wing. Eamon de Valera won control of the government in 1932, and in 1937 brought a new constitution into operation which restored the name of Eire and declared Ireland a sovereign, independent, democratic republic. In 1948 John A. Costello became the head of a six-party coalition cabinet.

In the Ireland Act of 1949 the British Parliament reasserted its claim to the Ulster counties, a claim not recognized by Eire. Costello lost office to de Valera in 1951, but won again in 1954. De Valera returned in 1957.

The Republic of Ireland has remained firmly aloof from political commitments in Western European integration, but there is little doubt that Irish traditions are cast in the mold of Free Europe. The foreign policy is friendly to the United States with its large and sympathetic group of citizens of Irish background. Both the government and the largely Catholic population of Ireland strongly oppose the Soviet way of life.

Portugal

Portugal joined the North Atlantic Treaty Organization in April, 1949. For the Free World this was important news, since the little country, about the size of Indiana, is strategically situated on the western part of the Iberian peninsula. Together with Spain she is in a vitally important geographical area on the western periphery of Europe and forms a kind of fixed aircraft carrier.

Dr. António de Oliveira Salazar, founder of the National Union in 1930, has been Premier and dictator of Portugal since 1932. The constitution, adopted by plebiscite in 1933, provides for a corporative republic, with a President popularly elected for a term of seven years. There are two chambers of 120 members each: the National Assembly, elected for four years to exercise legislative power (in theory it may overrule the President's veto by a two-thirds vote); and the Corporative Chamber, representing the guilds and syndicates, and handling economic and social matters. The President appoints the Premier, who selects his Cabinet, which is not responsible to the National Assembly.

There has been some criticism in the United States about the logic and wisdom of including Portugal, a dictatorship, among the nations of Free Europe in NATO. Defenders say that, while Salazar's regime is admittedly opposed to democratic and liberal ideas, it has brought political and economic stability to Portugal. In addition, it is said that support for the policy of containment of communism must be sought wherever it can be found.

Portugal was a part of Spain until it won its independence in the middle of the fifteenth century. Between 1279 and 1415, the Portuguese monarchy was gradually consolidated, despite opposition of nobility,

the Church, and the Kingdom of Castile. King John I (1385-1433) unified his country at the expense of the Castilians and the Moors of Morocco. The expansion of Portugal was brilliantly coordinated by John's son, Prince Henry, surnamed the Navigator. In 1488 Bartholomew Diaz reached the Cape of Good Hope, proving that the Far East was accessible by sea. In 1498 Vasco da Gama reached the western coast of India, to be followed by Portuguese explorers in the Cape Verde Islands, the Azores, the Madeiras, and into the Sahara hinterland. By the middle of the sixteenth century the Portuguese Empire included West and East Africa, Brazil, Persia, Indo-China, and Malaya.

In 1581 Philip II of Spain invaded Portugal and held her captive for sixty years. There followed a catastrophic decline of Portuguese commerce. Courageous and shrewd explorers, the Portuguese proved to be inefficient and corrupt colonizers. By the time the Portuguese dynasty was restored in 1640, Dutch, English, and French competitors began to seize the lion's share of the world's colonies and commerce. Portugal retained Angola and Mozambique in Africa and Brazil (until 1822), but her place as an imperial power was lost forever.

In the first half of the nineteenth century Portugal's political history was distinguished by dynasty quarrels and factional strife. In 1852 a parliamentary system was established on the Spanish principle of "rotativism," by which the "ins" and "outs" rotated in office through coercion and bribery of the voters. The corrupt King Carlos, who ascended the throne in 1889, made João Franco the Premier with dictatorial power in 1906. In 1908 Carlos and his heir were shot dead on the streets of Lisbon. The new king, Manuel II, was driven from the throne in the Revolution of 1910. Portugal was proclaimed a republic with a system modeled upon that of France.

Traditionally friendly to Great Britain, Portugal entered World War I on the Allies' side, and Portuguese troops fought on the Western Front and in Africa. In 1926 a revolution drove out the President, and six years later the Salazar dictatorship began.

The Portuguese economy is based on corporate units in industry, agriculture, and finance, each of which is supposed to regulate itself. Most of the people are engaged in agriculture, but foodstuffs must be imported. While education is compulsory, the illiteracy rate is high, with more than 40% of the population unable to read or write.

SCANDINAVIA

The three Scandinavian countries, Norway, Sweden, and Denmark, form neither a political nor an economic unity, though in 1953, together with Iceland, they established the Nordic Council, composed of delegates from the respective Parliaments to discuss mutual Scandinavian problems. Norway, Sweden, and Denmark have had a similar historical development. All three enjoy enlightened rule and a steady progress in political and social democracy. All three are dominantly Lutheran Protestant in religion, but all religions are tolerated. Illiteracy is virtually unknown in the Scandinavian countries. Despite Soviet pressure both Norway and Denmark joined the North Atlantic Pact and have made provision for NATO air bases on their territory. Sweden, closest of the three countries to the U.S.S.R., did not become a member of NATO and its foreign policy is rigidly neutral, but there is little doubt of its Western orientation. Military service is compulsory in the three countries. All maintain a traditional friendship with the United States.

Norway

Norway, one of the great sea-faring nations of the world (its merchant marine ranks as third largest) is a constitutional, hereditary monarchy. Executive power is vested in the King together with a Cabinet, or Council of State, consisting of a Prime Minister and at least seven other members. The *Storting*, or Parliament, is composed of 150 members elected by the people under proportional representation. The *Storting* discusses and votes on political and financial questions, but divides itself into two sections (*Lagting* and *Odelsting*, to discuss and pass on legislative matters. The King cannot dissolve the *Storting* before the expiration of its term. There is universal suffrage, male and female, for all citizens over twenty-three. In 1913 Norway had the distinction of being the first independent nation to establish woman suffrage.

Norwegians, like the Danes and Swedes, are of Teutonic origin. The Norsemen, also known as Vikings, ravaged the coasts of northwestern Europe from the eighth to the eleventh century.

In 1815, Norway, contrary to her wishes, fell under the control of Sweden. The union of Norway, inhabited by fishermen, sailors, merchants, and peasants, and Sweden, an aristocratic country of large estates and tenant farmers, was not a happy one, but it lasted for nearly a century. In 1905 the Norwegian parliament arranged a peaceful separation and invited a Danish prince to the Norwegian throne—

King Haakon VII. A treaty with Sweden provided that all disputes were to be settled by arbitration, and that no fortifications be erected on the common frontier. Since the separation the two countries have lived amicably as neighbors.

When World War I broke out, Norway, joined with Sweden and Denmark in a decision to remain neutral and to co-operate in the joint interest of the three countries. In World War II Norway was invaded by the Germans on April 9, 1940. She resisted for two months before the Nazis took over complete control. King Haakon and his government fled to London where they established a government-in-exile. Major Vidkun Quisling, who collaborated with the Nazis, was executed by the Norwegians in October, 1945.

While Norway's military strength is not great (army, navy, and air force are small) its strategic location and its firm adherence to NATO give it important significance in the cold war. Its foreign policy is strongly pro-Western and pro-American.

Sweden

Although generally considered as among the nations of Free Europe, Sweden has adopted a policy of neutrality in the cold war, undoubtedly dictated by her proximity to the Soviet Union. She was invited to join the Atlantic Pact in 1949 but did not accept membership. Like Switzerland, she has taken drastic steps to maintain her neutrality. Military service is compulsory from the ages of eighteen to forty-seven. The army consists of some 600,000 men in addition to a voluntary Home Guard of 100,000. The navy has three cruisers, more than a dozen destroyers, and some two dozen submarines, as well as other light units. The air force, with modern jets built in Sweden and including at least fifty combat squadrons and 1,200 planes, is the fourth largest in the world. Sweden is one of the most advanced countries in the world in the construction of atom bomb-proof military and civilian shelters.

Sweden is a constitutional monarchy. The king holds executive and judicial authority together with the Council of State headed by the Prime Minister. The *Riksdag* consists of a First Chamber with 150 members elected by provincial and municipal councils and holding office for eight years, and a Second Chamber of 23 members popularly elected for four years. Men and women over twenty-one vote.

In the nineteenth and twentieth centuries Sweden underwent a large-scale economic transformation. Although mountainous in topography, the country contains much productive land and the

Swedes have attained a high degree of proficiency in agriculture. Industry, especially mining, metal working, and building, is extensive. More than 90% of the economy is in private hands, but the government runs the railroads and much of the water power production. Sweden exports more iron ore than any other country. By supplying Nazi Germany with iron, she was able to maintain a precarious independence during the critical years of 1940-1941.

The earliest historical mention of Sweden is found in Tacitus' *Germania*, where reference is made to the powerful king and strong fleet of the Sulones. Toward the end of the tenth century Olaf Skötkonung established a Christian stronghold in Sweden. The initial union with Norway came in 1397. In 1520 the Danish King, Christian II, conquered Sweden and in the "Stockholm Blood-Bath" put leading Swedish personalities to death. Gustavus Vasa (1523-1560) broke away from Denmark and fashioned the modern Swedish state.

Sweden played a leading role in the second phase (1630-1635) of the Thirty Years' War (1618-1648). By the Treaty of Westphalia (1648), Sweden obtained western Pomerania and some neighboring territory on the Baltic. In 1700 a coalition of Russia, Poland, and Denmark united against Sweden and by the Peace of Nystad (1721) forced her to relinquish Livonia, Ingria, Estonia, and parts of Finland.

From the Napoleonic wars Sweden emerged with the gain of Norway from Denmark and with a new royal dynasty stemming from Marshal Bernadotte of France, who became King Charles XIV (1818-1844). The Bernadotte dynasty, despite its French and revolutionary origin, was stubbornly reactionary. The artificial union between Sweden and Norway led to an unhappy feud. It was finally dissolved in 1905. Between 1870 and 1914 Sweden lost one and a half million citizens, most of whom settled permanently in the United States. Sweden maintained a position of neutrality in both World Wars.

Denmark

A constitutional monarchy since 1849, Denmark has cast her lot with Free Europe. Legislative power is held jointly by king and parliament. The Constitution of 1953 provides for a unicameral parliament called the *Folketing*, consisting of 179 popularly elected members serving for four years. The cabinet is presided over by the king, who appoints the prime minister. Women are eligible to succeed to the throne.

Some 90% of Denmark is productive and nearly three-quarters is farmed. The main sources of the nation's wealth are dairy

farming and the production of meat products, all of which are exported in large quantities. The Danish merchant marine is one of the largest in the world on a per-capita basis. Like her Scandinavian neighbors, Denmark has large-scale public assistance programs, health insurance, disability and old age pensions, and unemployment insurance. There is a strong and effective co-operative movement.

The smallest of the three Scandinavian countries, Denmark emerged with the establishment of the Norwegian dynasty of the Ynglinger in Jutland at the end of the eighth century. It was subjugated and Christianized by the German King Henry I in 934. Canute the Great (1014-1035) conquered England in 1015. In the late twelfth and early thirteenth centuries Denmark became for a time the dominant power in Northern Europe.

Denmark supported Napoleon, for which she was punished at the Congress of Vienna in 1815 by the loss of Norway to Sweden. In 1864 Bismarck, together with the Austrians, made war on the little country as an initial step in the unification of Germany. Denmark was neutral in World War I. In 1939 Denmark signed a ten-year pact with Hitler, but less than a year later she was invaded by the Nazi Fuehrer. King Christian X cautioned his fellow countrymen to accept the occupation, but there was widespread resistance against the Nazi occupation. In 1944 Iceland declared its independence from Denmark, thus putting an end to a union that had existed since 1380.

In the current cold war little Denmark has turned enthusiastically and without reservation to the Free World. The army has some 100,000 men plus 25,000 in the Home Guard, the navy is small but efficient, the merchant marine is large and world-famed, and the air force numbers about 15,000 men. Denmark has approved the construction of seven airfields on Danish soil under the NATO program. A basic tenet of Danish foreign policy is traditional and consistent friendship with the United States.

Spain

Inclusion of Franco Spain among the "free nations" of Europe is regarded by Western leaders as necessary strategy in the cold war. The nature of the Franco dictatorship is well-known to all free peoples. From the viewpoint of the architects of American foreign policy, Spain, with her favorable location in Western Europe, is a bulwark against communism. Furthermore, with military service compulsory for two years, a large standing army, a navy, and air force, Spain is considered to be a

valuable military (not ideological) ally though not a member of NATO.

Defenders of this policy point out that the choice of partners must be made on a realistic basis, as witness the fact that the Western nations fought together with the Soviet Union against Nazi Germany after June, 1941. In 1951 the United States and Spain exchanged ambassadors. On September 26, 1953, by a ten-year defense agreement, Spain leased important air bases to the United States in return for military and economic aid.

This policy has been criticized vehemently both in the United States and abroad. Critics claim that the cold war is essentially an ideological struggle between nations supporting and opposing the central idea of freedom. Further, they say, to include a dictatorship such as that of Franco Spain among the "free" nations takes the props from under the meaning of such terms as "Free Europe" and the "Free World."

It was widely believed at the end of World War II that the collapse of Italy and Germany would be followed by the end of the Franco regime in Spain. At the Potsdam meeting in August, 1945, the Big Three (Great Britain, the United States, and Soviet Russia) went on record as opposing Spain as a member of the United Nations because of "its support of the Axis powers, its origins, its nature, its record." On December 12, 1946, the General Assembly moved that Spain be debarred from membership in the U. N. "until a new and acceptable government is formed." Far from bringing about Franco's downfall, these moves gave his regime a new lease on life. In 1955, under the strong support of the Latin-American countries and the Arab League, the General Assembly reversed its position and admitted Spain to membership in the U. N.

Franco's Hold

The question has often been asked: How is it possible for Franco to maintain his regime when other similar dictatorships have toppled? Most important is his firm control of the Spanish army. Of the approximately 800,000 men in the armed services there are at least 100 generals and 25,000 officers, all of whom are grateful to Franco for their positions. Through the Falange, the Spanish totalitarian party, Franco controls the police, the secret police, and the trade unions. The Spanish Catholic Church, while opposed to the Falange, regards Franco as the man who halted communism. He is strongly supported by Spanish industrialists and financiers as well as by all Spaniards who fear communism and especially another civil war.

Francisco Franco (b. Dec. 14, 1892) is *Caudillo* (leader), Chief of State, Prime Minister, and head of the Falange Party. He pushes the Falange into the foreground or background at will depending upon political expediency. He appoints the cabinet. The *Cortés*, or parliament, established in July, 1942, may formulate legislation, but it must be satisfactory to the dictator.

Spain, always predominantly agricultural, still finds it difficult to maintain a balance between production and consumption of foodstuffs. Although she has important mineral resources and raw materials, she has remained backward industrially and is faced with chronic financial difficulties. During the war years both the Allies and Germany competed for Spanish goods, so much so that a favorable balance of trade was shown. But after 1945 there was progressive economic deterioration. The cost of living rose stupendously and the gap between rich and poor widened. Workingmen were paid from ten to twelve pesetas a day (about thirty cents in dollar terms), worth very little in purchasing power. The national railway system virtually disintegrated. Because of the lack of raw materials, the iron, steel, and shipbuilding industries could operate only on a part-time basis. Meantime Franco announced a basic industrialization that would make Spain self-sufficient, an announcement received in Spain and elsewhere with much skepticism. American financial aid in return for the lease of air bases has relieved to some extent what is basically a weak economic system.

Spain, originally inhabited by Celts, Iberians, and Basques, became a part of the Roman Empire in 201 B.C., when it was conquered by Scipio Africanus. In 412 A.D. the barbarian Visigothic leader, Ataulf, crossed the Pyrenees and ruled Spain, first in the name of the Roman emperor and then independently. In 711 A.D. the Moslems under Tariq entered Spain from Africa and within a few years completed the subjugation of the country. In 732 the Franks, led by Charles Martel, defeated the Moslems at Tours, thus preventing the further expansion of Islam in southern Europe. Internal dissension of Spanish Islam invited a steady Christian conquest from the north.

Aragon and Castile became the most important Spanish states from the thirteenth to the fifteenth century, in time absorbing all the other peoples of Spain. The history of this period is a confused chronicle of fierce civil conflicts, of contests between grandees and kings, of oppressive taxation, and ecclesiastical problems. Aragon and Castile were consolidated by the marriage of Ferdinand II and Isabella I. The last

Moslem stronghold, Granada, was captured in January, 1492, the same year in which Columbus, under the sponsorship of Isabella, discovered America. With Moslem control ended, Roman Catholicism was established as the official state religion. The Jews (1492) and the Moslems (1502) were expelled from Spain at the cost of incalculable suffering and loss of life.

Once a World Power

In the era of exploration, discovery, and colonization Spain won tremendous wealth and a vast colonial empire. The conquest of Peru by Pizarro (1533) and of Mexico by Cortes (1519) brought great prosperity to the motherland. The Spanish Hapsburg monarchy, through a series of wars, diplomatic negotiations, and marriages, became for a time the most powerful in the world.

In 1588 Philip II sent his Invincible Armada to invade England, but its destruction cost Spain her supremacy on the seas and paved the way for England's colonization of America. Spain then sank rapidly to the status of a second-rate power, and never again played a major role in European politics.

In World War I Spain maintained a position of neutrality. In 1923 General Miguel Primo de Rivera became dictator. In 1930 Alfonso XIII revoked the dictatorship, but a strong antimonarchist and republican movement led to his abdication in 1931. The new Constitution declared Spain a workers' republic, broke up the large estates, separated Church and State, and secularized the schools. The 1936 elections returned a strong Popular Front majority with Manuel Azaña as President.

But political chaos persisted. On July 18, 1936, a conservative army officer in Morocco, Francisco Franco, led a mutiny against the government. The terrible civil war that followed lasted for three years and cost the lives of nearly a million men. It was, in effect, a dress rehearsal for World War II. Franco was aided by Fascist Italy and Nazi Germany, while Soviet Russia helped the Loyalist side. Several hundred leftist Americans served in the Abraham Lincoln brigade on the side of the republic. The war came to an end when Franco took Madrid on March 28, 1939. The Franco dictatorship has lasted longer than any Spanish government since pre-Napoleonic days.

The foreign policy of Franco Spain is distinguished by one dominant characteristic—unalterable opposition to the U.S.S.R. Defenders of the Franco regime are grateful for American military and economic aid and strongly support the use and development by United States forces of Spanish air and naval bases. Opponents

inside Spain have little opportunity to express their resentment.

Switzerland

Switzerland is the classic home of neutrality. It maintained neutrality in both world wars. After World War I Geneva was chosen as the seat of the League of Nations. The country is a great center for all sorts of international meetings and humanitarian associations. The International Postal Union has its headquarters in Berne, the International Committee of the Red Cross in Geneva. Switzerland has entered into no military alliances and is not a member of the United Nations, though it has joined several international agencies of the U. N.

The Swiss people do not take their neutrality for granted. Every Swiss male is required to serve in the national militia from the ages of eighteen to sixty and must take refresher courses each year.

Switzerland, as the homeland of the legendary William Tell, has always shown great sympathy for foreigners in distress. During the nineteenth century it was a haven for political refugees who came from many lands—Italians of the *Risorgimento*, Hungarian patriots of 1848, French communards, and Russian revolutionaries. In the twentieth century refugees from Fascist Italy, Nazi Germany, and from behind the Iron Curtain came to this Alpine asylum.

The Swiss Confederation consists of twenty-two sovereign cantons, each of which has a veto power over federal legislation by referendum. Federal authority is vested in a bicameral legislature. The *Ständerat*, or State Council, consists of forty-four members, two from each canton. The lower house, the *Nationalrat*, or National Council, has 196 members, one for each 24,000 of the population, elected for four-year terms. Executive authority is lodged in a board called the *Bundesrat*, or Federal Council, of seven members chosen by parliament. The Federal Council elects the President who serves for a term of one year and is ordinarily succeeded by the Vice President. The Federal Government regulates matters of war, peace, treaties, railroads, postal service, and the national mint. Each canton reserves for itself important local powers.

The people of Switzerland are of three nationalities—German, French, and Italian, all recognized as national languages in 1874. Romansch, a dialect of the Alpine regions, was added as a national language in 1937. The German Swiss number approximately 71.9% of the population; the French Swiss 20.4%; and the Italian Swiss 6%. A member of parliament may address

his colleagues in any one of the four national languages.

Switzerland is primarily an agricultural and pastoral country. With excellent pasturage conditions, the raising of cattle is of first importance. Swiss cheese, milk chocolate, and condensed milk have become world famous. However, with nearly a fourth of the land unproductive, Switzerland is dependent upon imports for much of its food supply. Manufacturing, which occupies nearly half the population, is conducted for the most part in small plants with highly skilled workers. Swiss watches, machines, and precision instruments enjoy a worldwide reputation. The Swiss banking system has become one of the most important in the world. Another source of income is the tourist traffic. Originally isolated by high mountains, Switzerland became, with the development of modern means of transportation, a land of tourists who come to enjoy its idyllically beautiful towns and mountains. The economic and social well-being of the Swiss is such as to arouse the envy of other peoples.

Called Helvetia in ancient times, Switzerland in the Middle Ages was a federation of fiefs of the Holy Roman Empire. Fashioned around the nucleus of three German forest districts of Schwyz, Uri, and Nid-

walden, the Swiss Confederation slowly added new cantons. In 1648 the Treaty of Westphalia gave Switzerland her independence from the Holy Roman Empire. French revolutionary troops occupied Switzerland in 1798 and named it the Helvetic Republic, but Napoleon in 1803 restored its federal government. At this time and again in 1815 the French- and Italian-speaking peoples of Switzerland were raised to political equality.

In 1815 the Congress of Vienna neutralized and recognized the independence of Switzerland. In the revolutionary period of 1848 the Catholic cantons seceded and organized a separate union called the *Sonderbund*. In 1848 the new Swiss constitution established a union modeled upon that of the United States. The Federal Constitution of 1874 established a strong central government while still maintaining large powers of local control in each canton.

Swiss foreign policy is carefully neutral in the cold war, even though Swiss traditions have long reflected the best of Western democratic development. Relations with the United States have always been cordial and friendly, despite friction over such differences as American tariffs on Swiss watches and watch works.

THE FAR EAST

By

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NO REGION of the world is undergoing such dynamic changes and is so wracked with conflict as the modern Far East. Homeland of nearly one-third of the human race, it has been strained for a century by the struggle to modernize its ancient cultures and to win a world position of independence and respect for its peoples. It is today a major battleground of the global conflict between Communism and democracy. Two civil wars, an international war, and a revolution have been fought here within the last decade. The problems of peace are not yet solved.

Today the nations of the Far East stand opposed in two great blocs. In the one bloc are those states seeking to build democratic societies in alliance with the United States: Japan, South Korea, the Chinese Republic on Taiwan, and the Philippines. In the other are the Soviet-allied Communist states: the Chinese People's Re-

public on the mainland and the Democratic People's Republic of North Korea.

The United States and China

The United States and Communist China have been ideologically prejudiced against each other from the beginning. The formation of the Sino-Soviet alliance has made the Chinese mainland a chief actor in the Cold War, associating itself with Soviet attitudes of hostility toward the United States and thereby drawing to itself the ill will of the United States in turn. There are also deep psychological resentments which have built up. The Chinese Communists are bitter against what they felt to be partiality for the Nationalists in America's mediation efforts in 1945-6, America's intervention in Korea, and particularly America's protection of

the Nationalist Government on Taiwan since 1950. They also see the rebuilding of Japan as a security threat.

Americans for their part have been embittered by a deep feeling of betrayal that the Chinese people, for whom they sacrificed so much in World War II, have turned against them. They have been revolted by the treatment accorded American civilians in China and later American prisoners of war. (With the release of two priests in June 1958, the number of Americans being held on spy charges was reduced to four). Many still feel hatreds engendered by the fighting in Korea. They are also fearful that the massive build-up of Communist Chinese arms may threaten Asia again with war. But most fundamental of all is the deep moral and strategic concern felt by America for the Chinese regime on Taiwan.

America's commitment to the regime on Taiwan has grown out of a series of crises.

In 1949, when the Chinese Nationalist government fled to Taiwan, the United States continued to recognize it as the legitimate government of the Republic of China. It was not, however, inclined any longer to advise or defend it. Official American disenchantment with the Nationalist regime became public after the allure of the Marshall mission in 1946; and America began to pull back, to disengage itself from Chinese as well as Korean affairs. Then came the North Korean attack in June, 1950, which shocked the nation into an immediate, far-reaching reconsideration of its Far Eastern policy. Commitment in Korea brought sudden concern for Taiwan, which flanked the American supply lines. The Seventh Fleet was dispatched to neutralize the Formosan Straits. Military and economic aid to the Nationalist Government was revived and a Military Assistance Advisory Group was dispatched to help train the island's armed forces.

The intervention of the Communist Chinese "volunteers" in the Korean War solidified these ties and led American officials to undertake a campaign to brand the mainland regime as an aggressor, which the U.N. General Assembly did, to institute an economic blockade, which was likewise done, and to persuade the powers of the world to follow its own example to refuse to recognize the mainland government and to refuse it admission to the United Nations. In February, 1955, an agreement was ratified whereby the United States agreed to defend Formosa and the Pescadores.

As to other Nationalist-held islands along the China coast, most importantly the Quemoy islands, controlling the port

of Amoy, and the Matsu islands, controlling the port of Foochow, no public commitment was made; but the Congress did authorize the President "to employ the armed forces of the United States as he deems necessary for the specific purpose of securing Formosa . . . [and its] related positions." The Communist Chinese Government did not thereupon give up its intention to "liberate" these positions, but for the next three years the Taiwan Straits were relatively quiet.

Then on August 23, 1958, following an eight-week military conference in China and a personal meeting between Mao Tse-tung and Khrushchev in Peking, July 31-August 3, the Communist forces on the mainland began a heavy shelling of Quemoy. Torpedo boat fleets were sent out to blockade the island. Chinese territorial waters were proclaimed to extend twelve nautical miles, thus including both the Matsu and Quemoy islands. Invasion, said Radio Peiping, was "imminent."

The United States reacted sharply. Secretary of State Dulles warned the mainland regime that any move to invade the offshore islands would constitute a "threat to the peace" and implied that it might have to be met by a counterattack on the mainland. U. S. naval forces in the Far East were alerted. On September 4, following a conference with the President, Mr. Dulles said that while no final decision had been made to commit American forces to the defense of the islands, "we have recognized that the securing and protecting of Quemoy and Matsu have increasingly become related to the defense of Taiwan." Three days later American naval vessels began escorting Nationalist supply convoys to Quemoy. Thereupon Soviet Premier Khrushchev issued a blunt warning that should hostilities break out between the United States and mainland China, the Soviet Union was fully prepared to come to the aid of its ally. President Eisenhower responded in a radio and television address that, be that as it may, the issue to him was one of America's obligation to defend its own ally against aggression and "we shall never timidly retreat before [such a] threat."

As the world teetered again on the brink of an atomic war no one wanted, statesmen at last began seeking a way out. On September 6, in response to a plea from President Eisenhower that negotiations be tried, Premier Chou En-lai suggested that the Chinese-American talks, which had been suspended since December, 1957, be resumed. On September 15, with the shelling of Quemoy eased and the U. N. General Assembly deferring debate, Ambassador Wang Ping-nan and Ambassador Jacob D. Beam began their fateful talks in Warsaw.

The United States and Its Far Eastern Allies

The China problem, grave as it is, is not America's only concern in the Far East. Since World War II America has been deeply disturbed by the threat of Communist expansion and in consequence has committed itself heavily to building and strengthening a non-Communist alliance with the other states of the area, namely, Japan, South Korea, the Chinese Republic on Taiwan, and the Philippines.

The effort of the United States to retain an independent Japan as an ally in the defense of the interests of the non-Communist world was rewarded in March, 1954, with the conclusion of a Mutual Defense Assistance Agreement, which specified the terms of American military aid to Japan. Outside the military sphere, the United States has done its best to expand its trade and cultural ties with Japan, to encourage its allies to accept Japan as a partner, and to persuade the world community to recognize Japan again as a responsible and important member. The result has been close cooperation and understanding in many fields.

A second American partner has been South Korea, which owes its survival largely to American support and which since 1953 has been allied in a mutual defense pact with the United States. It is not too much to say that a third partner also owes its survival to the United States: the Republic of China on Taiwan. And as in the case of South Korea, America's protective relationship toward Taiwan developed largely out of the Korean War.

America's commitments are equally strong and explicit in the Philippines, where the defense of the islands is entrusted largely to American troops based there.

Irritations Constantly Arise

Frictions within the American alliance system are more apparent than in the Soviet Bloc, in large part because the vigorous support of private interests and the free discussion of public issues is vital to our democratic system. Certain questions in particular require constant attention in American-Japanese relations: Japanese objection to American administration of Okinawa, recognized to be inherently Japanese territory, but being used as an American military base; differences in judgment about the rapidity and extent to which Japanese armed forces should replace American forces in the defense of the home islands; the use by these American forces of atomic weapons, and the continued testing of

atomic devices in the Pacific; Japanese concern for the discrimination which develops from time to time in the American market against expanding Japanese imports, when these are vitally necessary to enable Japan to pay for the much greater volume of goods it needs from the United States; and growing popular agitation in Japan against the American pressure to develop ties only with the Chinese government on Formosa, when strong cultural, political, economic, and strategic interests pull it also toward mainland China.

Problems in American-South Korean and American-Formosan relations have been less publicized in recent years, but they are none the less real. In both cases extensive help continues to be required to sustain a viable economy and effective military forces. Dependency on the United States for these needs gives great leverage to the American Government, which appears to intervene heavily in both cases to curb the tendency toward personal rule of both Syngman Rhee and Chiang K'ai-shek and to restrain their powerful drives to reopen the civil wars for the conquest of North Korea and mainland China. Pressure is also exerted for social and economic reform. Differences over policy as well as popular irritations arising out of the presence of American forces, as the Taipei Riots on Taiwan and the excitement over the Girard case in Japan in 1957 testify, give rise from time to time to difficult problems of adjustment and negotiation.

Relations with the Philippines have been relatively smooth. Requests for leniency in the application of U. S. tariffs, loans for economic development, and consideration of a status of forces agreement were received favorably in Washington during Garcia's visit in June, 1958.

It must also be realized that there is friction among America's Far Eastern partners themselves. Both Korea and Formosa were formerly colonies of the Japanese Empire. While Japan may reasonably claim to have invested heavily in the economic development of both areas, it has experienced great difficulty in overcoming the hostility its years of domination have produced. This is especially true in the case of Korea.

On the other hand, relations between Japan and the Chinese Republic on Taiwan have developed with a minimum of friction. Again, Japan has cooperated with the United States in recognizing the Chinese Republic on Taiwan rather than the Chinese People's Republic on the mainland. The Taiwan authorities in turn have accepted the peace treaty with Japan, exchanged diplomatic missions, and encouraged the development of trade. And yet, Taiwan's sudden temporary suspension of

trade with Japan in the spring of 1957, in protest against what it feared was a move by Japan implying recognition of Communist China, reflected a deep suspicion—the same suspicion which Taiwan entertains toward the United States—that Japan may sooner or later abandon it to the mercies of the mainland.

Since 1956, when the settlement of the reparations question cleared the way for the signing of the peace treaty, Japanese-Filipino relations have steadily improved, particularly in the field of trade. Relations between South Korea, Taiwan, and the Philippines have been excellent.

Japan

The transformation of Japan from an aggressive, militaristic autocracy to a pacific democracy under civilian leadership is one of the most dramatic and significant events of our time. How did this come about?

The initiative for the major reforms accomplished under the occupation came from SCAP (Supreme Command of the Allied Powers). In most cases SCAP acted in accord with stated U. S. and Allied policy, in some cases on the initiative of the supreme commander himself, General Douglas MacArthur. Under the terms of the Potsdam Declaration, SCAP's wishes were communicated to the central Japanese Government, which in turn made them into law. In the early years enforcement on the local level was checked on by special teams of the Eighth Army.

Working through the Japanese Government, the Occupation authorities attempted to recast the basic mold of Japanese society. Demilitarization and democratization were primary objectives. In Tokyo, twenty-seven top military and political leaders were brought to trial before the International Military Tribunal of the Far East. From 1946 to 1948 the pre-war and wartime activities of the militarists and their supporters were paraded in the courtroom, with the result that seven were sentenced to death, sixteen to life imprisonment, one to twenty years', and one to seven years' imprisonment.

Having discredited and swept aside many of the old leaders, SCAP tried to provide for greater popular participation in government and facilitate the rise of new, peaceful, democratic leaders by requiring the adoption of a new constitution, which came into effect in 1947. Current Japanese revisionists and most objective observers agree, however, that in spirit and in fact the new constitution was "made abroad" and forced on an unwilling Japanese Government.

The question of constitutional revision

was raised by SCAP in September, 1945. SCAP produced a document which was presented to the Japanese Government as a model. When the Japanese negotiators expressed reluctance to accept SCAP's suggestions, their agreement was extracted by warning them that otherwise SCAP might reconsider its attitude toward the person of the Emperor, who had hitherto escaped charges of war guilt, and might appeal over the heads of the government to the people. The Japanese leaders then produced a draft, which was likewise found wanting. Pressure was again exerted to make this conform to SCAP's wishes. The result was released to the public for the first time as a "Japanese document."

Constitutional changes need not and indeed may not have changed the warm emotional response felt by nearly all Japanese toward the Emperor as a person and as a symbol of Japanese life, but the legal position of the Emperor and the legal structure of the state have undergone radical changes. Among the most outstanding are the following: Sovereignty has specifically been transferred to the people, the Emperor being left with ceremonial, symbolic functions only. The Diet has been made the highest organ of state power, with the prime minister responsible to it. The judiciary has been made independent. The people have been granted universal suffrage and an impressive number of civil and human rights. Perhaps its most dramatic provision is Article 9, in which "the Japanese people forever renounce war as a sovereign right of the nation" and deny to themselves the right to maintain armed forces.

Reforms Wide and Varied

Big business was attacked and an effort was begun to break it up. While farmers were given a revision of land tenure, industrial laborers were encouraged to organize, and women were given legal equality in the home as in politics. New freedoms were granted to the press and the education system was liberalized and placed under local control. This latter reform was part of a general effort to encourage local participation in government by giving real power, not only in education but in police and many other affairs, to the prefectures, cities, and villages.

While the Occupation lasted, the Japanese Government and people cooperated to a remarkable degree in carrying out these foreign-inspired reforms. Once the Occupation was ended, however, many wondered how long they would be continued. The truth is that SCAP itself began to reverse them as early as 1948. American domestic pressures plus the advent of the Cold War

caused SCAP in that year to clamp down on Japanese Communists and, in order to strengthen Japanese leadership, to permit the gradual return of purgees to public life. The outbreak of the Korean War in 1950 caused SCAP, in spite of the constitutional provision to the contrary, to encourage the Japanese Government to develop a Police Reserve, the first step toward a rebuilding of the Japanese Army. This tendency to reverse certain occupation reforms increased when the Japanese regained independence in 1952.

Accompanying these and other "reversals" has been a conservative movement to revise the 1947 constitution, which is charged with being ill suited in many instances to the special circumstances of Japanese life. It has been suggested among other things that the specified duties of citizens should be increased. The Diet, it is said, should have greater authority to restrict citizens' rights in the interests of the public welfare. The Cabinet should be given greater independence from the Diet in fiscal and administrative areas and greater power over the Diet to dissolve or suspend it. The Emperor, the revisionists claim, should be accorded greater prestige and authority. And the restriction on the establishment of armed forces should be eliminated.

Traditional Ways Persist

Traditional habits and ways of thinking antithetical to western democratic practices persist in important areas of Japanese life. Customary deference to local notables continues, especially in the countryside. Boss-henchman or patron-client relationships are still strong whether in labor organizations, factories, business offices, or political parties. Social classes are regaining some of their former rigidity. Preference for harmony and deference to superiors are frequently evident in all classes.

Some Japanese have gone beyond the conservative revisionists to call for another revolution of the social system. The Communists have been particularly active. At times they have championed a united front of all left-wing groups, working to build front organizations in university, labor, farmer, women, and other groups, and campaigning for Diet seats. At other times they have concentrated their efforts on organizing conspiratorial underground terrorists for purposes of sabotage. But drastic and sudden shifts in the party line required by Moscow, deeds of violence, their hostility to the Emperor, and popular fears of the Soviet Union have all weakened their appeal. Except for a brief period in the early days of the Occupation, the Communists have been unable

to persuade many to join their membership or to support their parliamentary candidates.

Ultra-nationalist groups have also shown their heads again, but they have been even less influential than the Communists. Thus, while reaction is alive, its victories have been relatively small; and the appeal of extremism has been relatively negligible. Democratic ideas continue to be championed with vigor. The fact seems to be that while many of the reforms went beyond the desires of Japan's leaders, others were welcomed and indeed were a logical culmination of long-term democratic tendencies in pre-war Japan. Moreover, the "new order" has been strongly supported by those individuals and groups which have particularly profited from it, such as labor, farmer, and women's movements, and political party leaders. Most of the democratic structure imposed by the Occupation remains.

In 1955, the democratic system was strengthened by the consolidation of various political groups to form two major parties: the Social Democratic Party and the Liberal-Democratic Party. These continue today to dominate the political scene. In the May, 1958, election to the Diet only fourteen candidates outside of these parties gained election, one a Communist, one a minor party man, and twelve independents. The Social Democratic Party has been consistently in the minority. At present holding 166 or roughly one-third of the seats in the House of Representatives, the party has only once formed a government—in 1947-48. It draws some support from all major strata of the population, but is strongest with organized labor and the intellectuals. It stresses its hostility to any revisions of the constitution, its objection to American bases on Japan and Japan's rearmament, and its support for increased trade and cooperation with Communist China.

The conservatives, organized since 1955 as the Liberal-Democratic Party, have held a majority in every postwar Diet. On June 12, 1958, following the general election in which the party won 298 or not quite two-thirds of the seats in the House of Representatives, the Diet re-elected as premier the Liberal-Democratic Party president, sixty-one-year-old Nobusuke Kishi, an experienced economic planner who favors generally the business point of view at home and continued alignment with, but not subordination to, the United States abroad. First elected premier in 1957, Kishi has proved to be both popular and able. Within the Liberal-Democratic Party he has been able to harness the energies of a number of rival factions.

Among the public he has helped his

party to consolidate its appeal to all segments of the population, but particularly to businessmen and farmers. He and his party have offered a program of economic expansion under close government supervision, reassessment of Occupation reforms and eventual revision of the constitution, gradual rearmament, and inter-dependence with the United States.

Peace and Prosperity

No doubt the most important reason for the strength of the conservative party and indeed of the democratic system itself has been that for more than five years the Japanese have been enjoying an era of peace and prosperity unprecedented in their history. The establishment of peaceful relations with their neighbors has required strenuous and patient effort. At the San Francisco Conference in 1951, Japan was reaccepted as a peaceful member of the world community by a number of western states. But most of Japan's neighbors in Asia as well as the states of the Communist Bloc did not sign the San Francisco Treaty. Separate negotiations had to be entered into with a number of states which had bitter memories of the war and high demands for reparations. Gradually relations were established with Nationalist China, then with Burma, Thailand, the Philippines, and finally in 1958 with Indonesia. Of the non-Communist states only the Republic of Korea remains unyielding. Of the Communist states, the Soviet Union finally agreed to a peace declaration with Japan in 1956, in accord with which Japan also won admission to the United Nations.

Serious international problems still plague Japan. The peace declaration did not settle all issues with the U.S.S.R. The question of what kind of relations to develop with the other states of the Communist Bloc, particularly mainland China, is pressing. Korean claims and sensibilities have still to be pacified. Military relations with the United States require constant attention, as do trade relations with all countries. But Japan has been making satisfying progress in its international relations, and without the expense of supporting a large military establishment.

In the decade from 1946 to 1956 the Japanese achieved an average annual rate of economic growth of 11%, a figure unprecedented in all Japanese history and probably the highest in the world. Although such a rapid rate is hardly likely to continue, the Japanese Economic Planning Agency estimates that at least for the next ten to fifteen years a rate of growth of possibly 6% to 7% is essential.

Such a growth is needed to keep up with

the expanding population, which now totals more than 90 million and is expected to add 600,000 to 700,000 new workers to the labor force each year. It is necessary also if social tensions are to be relieved by a more equitable distribution of income. The Japanese economic structure is really dual. One half is pre-modern, very small-scale, mainly family enterprise and agriculture. Here the productivity and consequently the income per worker is very low. The other half is modern, large-scale enterprise, in which the capital investment is high and the productivity and income per worker is correspondingly high. Many Japanese economists feel that if Japan is to enjoy social stability it will be necessary in the coming years for the government to take special steps not only to support the expansion of big industry, but also to encourage a greater investment of capital and technology in the small enterprises, thereby increasing the productivity and income of their workers.

Step-up of Facilities Needed

To sustain such growth, increasing need is being felt in Japan to improve its transportation facilities, one of the most spectacular projects being a super-highway to be built from one tip of the islands to the other. Another need is to increase the production of energy. Ambitious attempts are being made to harness more water power, as, for example, the project of the Kansai Electric Power Company in the Jurobe Gorge, which is expected to produce 258,000 additional kilowatts. The peacetime uses of atomic energy are also being intensively studied.

Increased imports are essential to Japan's economic growth, for the islands are small and poorly endowed. The key problem is how to secure the foreign exchange needed to pay for them. During the first half of 1957 imports exceeded exports two to one forcing the government to place various restrictions on the trade. The gap was narrowed, but the year ended with a half-billion-dollar deficit in foreign exchange.

Japan is making every effort to expand its markets in the West. It has been admitted to GATT, but still suffers discrimination in the British market and on several occasions has taken the extraordinary step of itself limiting its exports to avoid a raising of the barriers in the United States.

Two other major markets beckon. One is south and southeast Asia, which the Kishi government has tried particularly to open up. Three obstacles have been met: distrust of Japanese motives engendered by the experience of the people of this region

with Japan before and during World War II, shortage of capital, and competition from Britain, West Germany, and others. To overcome the lingering suspicion, Prime Minister Kishi twice in 1957 toured the area on good-will missions. Partly to assuage the bitterness and partly, no doubt, to stimulate trade, the Japanese have sought steadily to negotiate reparations settlements, the latest being with the Philippines in 1956 and with Indonesia in 1958. In February, 1958, a \$50,000,000 loan was extended to India to finance the purchase of Japanese railway equipment and hydroelectric and thermal power generators. When Prime Minister Kishi visited Washington in June, 1958, he attempted to persuade the United States to provide the capital for a vast Japanese development program in south and southeast Asia. Since this did not materialize, increased attention is being given in Japanese financial circles to the need for Japan itself to provide more capital for the development of the region.

The other market which many Japanese are hopeful of entering more fully is mainland China. An important trading partner of Japan's before 1945, it has not recovered its pre-war position. Although Japanese trade with the mainland grew after 1951, it has remained smaller than that with Taiwan. One reason has been the restrictive policy of the Japanese Government, which enforced a partial boycott in accord with the policy enunciated by America during the Korean War. The steady relaxation of that boycott over the past few years and, finally, its major reduction in July, 1957, has not, however, led to a great expansion in the trade. During 1957 Japanese exports to Red China fell off 15% and imports fell off 21%.

Restrictions for Red China

A more important reason for the weakness of the trade has been the restrictive policies of the Red Chinese Government, which has been attempting to use the promise of this trade to force the Japanese Government to recognize it. In April, 1958, the Communist Chinese brought their campaign to a new climax by backing out of a barter-trade agreement negotiated with private Japanese trading associations in March, on the grounds that the Kishi government's refusal to accord diplomatic protection to a permanent Red Chinese trade delegation made the agreement impossible to execute. Limited trade continues on an individual barter basis.

In the spring of 1958 two other developments overseas had a singular effect on Japan's exports: the recession in the United States and the civil war in In-

donesia. The sale of textiles, steel, and other products fell off. Inventories grew, production was cut back. Failures of many small companies and growing unemployment were reported.

South Korea

The Republic of Korea, which governs 20 million Koreans south of the thirty-eighth parallel, has been struggling against enormous odds since its organization in 1948 to build a free and independent country. Its most pressing problem has been physical survival. Although military hostilities ceased with the signing of the armistice agreement by the U.N. and North Korean-Chinese Communist commands in July, 1953, the ROK did not sign the armistice and no peace settlement has yet been negotiated. Moreover, the Neutral Nations Supervisory Commission, which was charged to see that the conditions of the armistice were observed, has found it difficult to carry out inspection and a large military build-up is believed to have been effected in North Korea. Under these circumstances the Republic of Korea has felt it imperative to maintain an army of over 650,000 men and a small but growing navy and air force. In June, 1957, the way was opened to strengthen these forces as the U.N. Command announced that breaches of the armistice agreement by the opposing side freed it to equip its own men with more modern weapons.

The United States has given major assistance to the ROK military effort, but the financial burden imposed on the Republic has been almost intolerable. At the same time South Korea has been faced with staggering economic problems. Dislocations produced by the severance of ties with Japan, the division of the peninsula, and the destruction caused by the civil war have depressed all economic activity and made extensive government action imperative. Relief and reconstruction have gone forward; production, however, has increased little beyond the 1949-50 level and has hardly kept pace with the growth in population. Trade has been encouraged, but the traditional exchange with Japan has not been restored and the overall balance has been heavily unfavorable. Revenue from monopolies of salt and tobacco and a large variety of taxes has not been adequate. Nearly \$2 billion for relief and aid has been given since 1950 by the United States and the United Nations, but even this has been insufficient.

South Korea has tended to look to one man, Syngman Rhee, for leadership. As head of the Liberal Party and president of the Republic since its founding, Rhee has dominated nearly every phase of the

republic's politics. Yet Rhee has followed democratic forms and his opposition has worked within the democratic framework of the 1948 constitution.

Although more centralized in its controls over the police, local government, education, and the media of communication than the government of the United States, the ROK is much like the United States in its having a popularly elected national legislature (the National Assembly, consisting of a House of Representatives, with provision for the addition of a House of Councillors), a popularly elected president and vice president, and an independent judiciary. National elections have been vigorously participated in and spiritedly contested.

During his tenure Rhee has increasingly strengthened his control. In the national election of May, 1956, he was elected to his third four-year term by a popular majority of 55% of the total vote.

Outside Rhee's own Liberal Party the opposition has steadily increased. Left-wing parties have been severely hounded, but since 1955 moderate anti-Rhee elements in the National Assembly have built an increasingly effective Democratic Party. In the National Assembly elections on May 2, 1958, the Liberal Party won 125 seats as opposed to 79 for the Democrats, 28 independents, and one for the Unity Party; it failed to get the two-thirds necessary to amend the constitution.

The Chinese Republic on Taiwan

Although the Nationalist government of the Republic of China claims authority over the mainland and is recognized as the legitimate government there by the United States and the United Nations, in fact it has been forced to content itself with rule over its last refuge, the island of Taiwan, former colony of the Japanese Empire, home of nearly 10,000,000 Formosans of Chinese descent, aborigines, and refugees from the mainland. Here it has been able to maintain itself only by dint of its own great effort and the aid of the United States.

Consistent with its aspirations to return to the continent and threatened itself with attack from the continent, the Taiwan regime maintains more than 600,000 men under arms and skirmishes daily with Communist forces from the mainland opposite. Forced to withdraw from the Tachen and Nanchi Islands in February, 1955, it continues with American protection to hold on to the Quemoy, Matsu, and Pescadores islands in the Strait of Formosa.

Aid from the United States has also

made possible a steady improvement in the island's economic situation. Having completed a first Four-Year Plan for economic expansion, 1953-56, and now pursuing a second Four-Year Plan, 1957-60, Taiwan has been able in its agricultural production to more than keep pace with the growth in population, and since 1950 it has trebled the value of its industrial output. Contrary to the direction taken by the government on the mainland, it has done this while strengthening the private sector of the economy. In 1952 the government's share of the total value of all enterprises was roughly two-thirds. By 1957, partly by encouraging the development of new plants and partly by transferring the ownership of its own plants, it had reduced its share to about one-half. In this same period a land reform was executed by which the bulk of the land passed into the hands of the tillers.

Impressive as these accomplishments are, they have been inadequate to secure the self-sufficiency desired. Trade has been greatly expanded, especially with Japan and the United States, but the balance has remained consistently unfavorable. Capital needs of economic development are still too great to be met locally. Military costs far exceed revenues available to the government. The result has been steady inflation and continued dependence on American aid.

Chiang's Leadership

The extraordinary political stability maintained under these trying circumstances is the result largely of the leadership of seventy-two-year-old President Chiang Kai-shek and the loyalty to him of his Nationalist Party supporters. In 1949, when the generalissimo fled to Taiwan, he brought with him party headquarters, a large number of his personal followers, and the gold reserves of the central government.

While popular participation in government has been increasing, no strong opposition party has yet succeeded in organizing itself. Taiwan Communist and independence movements have been vigorously suppressed. Most anti-Chiang leaders in the Nationalist Party who have not defected to the Communists have gone into voluntary or forced exile. As the victories in the local elections in January, 1958, show, Chiang's Nationalists retain control. Consequently, political interest has centered on factional struggles within the Party. Shake-ups in the military high command in 1956 and 1957, and in the cabinet in 1958, are thought to be related to the increasing rivalry for eventual succession to the aging Chiang.

The Philippines

Emerging in 1946 as an independent state after centuries of Spanish and American colonial rule, the Philippine people have chosen to build a democratic society in close alliance with the United States. Except for the Communist-led Hukbalahap movement, 1946-50, no left-wing movement of importance has developed; and except for Claro Recto's plea for the "Philippines for Filipinos" in his unsuccessful bid for the presidency in 1957, no important leader has questioned this orientation to the United States.

The two most important political parties, the Nationalist and the Liberal, are both conservative and divide chiefly on personalities. The Nationalists are led by the sixty-two-year-old president of the Republic, Carlos Garcia, a man of long political experience in pre-war as well as post-war times, and by José P. Laurel, Jr., son of the wartime president and at present Speaker of the House of Representatives. Although in the elections of December, 1957, Garcia won the presidency with 41% of the popular vote, his running-mate, Laurel, failed of election. The successful vice-presidential candidate was the vigorous Diosdado Macapagal, a young Nationalist representative who has distinguished himself in recent years as a social reformer and a foreign-affairs expert.

In addition to a popularly elected president and vice president, the Philippine constitution, drawn up in 1935, provides for an independent judiciary headed by a Supreme Court, and a popularly elected Congress of two houses. In the 1957 elections Garcia's Liberal Party succeeded in retaining not only the presidency but majority control in both houses as well.

The most pressing problems facing the young republic are economic. They result largely from two causes: the great destruction wrought during World War II (Filipinos estimate damage by the Japanese at \$8 billion) and the gradual imposition of tariffs on Filipino goods entering the American market. During the years of its colonial administration, the United States permitted Filipino goods to enter duty-free. As a result the Filipino economy developed chiefly to supply money crops to America—notably copra, sugar, tobacco, and abaca. Food and industrial goods were bought abroad with the proceeds and needed public services were supported with the revenues. Since the grant of commonwealth status to the islands in 1935, however, it has been United States policy gradually to end this preferential tariff treatment. In order to do so it has provided—for example, in the Tydings-McDuffie Act of 1934, the Trade Act of

1946, and the revision of that act in 1955—that tariffs shall be applied on certain Filipino goods imported in excess of fixed duty-free quotas, these quotas to be reduced at a regular rate until abolished completely in 1974. Unprepared yet to compete without preferential treatment, the Filipinos have suffered a sharp reduction in their exports.

Efforts are being made to offset this by stimulating the domestic production of commodities formerly imported. Diversification of agriculture is being pushed. Particular attention is being given to the growth of food crops, especially rice, for local consumption. Great hope is placed in the Agno River power and irrigation project in central Luzon. A variety of industries are also being promoted to reduce the Philippines' dependence on imports and to find substitutes for dwindling agricultural exports. But import needs continue high and capital for domestic economic development is short. The Filipino government, particularly under Magsaysay and Garcia, has inaugurated strict trade controls and a domestic austerity program. And the United States has given substantial aid, the latest being the agreement to loan an additional \$125 million, negotiated by President Garcia on his visit to Washington in June, 1958. But the solution to the quest for economic independence is not yet in sight.

Militarily, the islands have relied for external defense on the United States, which secured the leasehold of a number of bases when independence was granted. In 1951 a mutual defense pact was signed with the United States and in 1954 a joint Philippines-United States defense council was set up to implement the arrangement. While the status of these bases and jurisdiction over the forces on them continue to be sources of friction, in 1956 the Philippines agreed to contribute to their maintenance.

Communist China

While the Nationalists hold on to the island of Taiwan, since 1949 the more than six hundred million Chinese on the mainland have fallen under the sway of the Communist rulers in Peiping. How do these Chinese Communists exercise their control? What do they seek? What problems do they face?

The primary instrument of leadership and control is the Communist Party of China. As the party constitution of 1956 declares: The CPC "leads the masses in active participation in the life of the state." Everywhere "in economic enterprises, villages, schools, and military units, the basic party organizations see to it that

government organs carry out the decisions of higher party and government offices." While a number of so-called "minor parties" are permitted to exist, such as the Revolutionary Committee of the Kuomintang and the China Democratic League, none of them enjoys any power.

To accomplish its aim to lead the vast population of China, the Communist Party has needed to expand its membership rapidly. Most members have joined the Party since the take-over in 1949. In March, 1957, it was reported to number 12,000,000 members, making it the largest Communist Party in the world. While it claims to be the "vanguard of the Chinese workers' class," it actually includes few industrial workers in its ranks. The great bulk of Party members has been drawn from the peasantry. Many probably were indoctrinated and brought into the Party while serving in the armed forces.

In welding this large membership into an elite corps the CPC has adhered faithfully to the Leninist precept of "democratic centralism," according to which

the individual must obey the organization, the minority must obey the majority, lower echelons must obey higher echelons, and the entire Party must obey the basic principles of the Central Committee.

The members of the Central Committee are a remarkably homogeneous group. Of the ninety-seven members of the present CC, nearly all have come from the middle and upper-middle strata of the old Chinese society, especially from landlord and prosperous peasant families. Over half have come from the same region—central China; indeed, nearly one-third come from Hunan, the home province of Mao Tse-tung. Nearly all have had some formal education. More than one-third of them have studied abroad, especially in the U.S.S.R. Most of them joined the Party in their teens and early twenties and have served their adult lives as political commissars, military commanders, or organizers within the ranks of the Party. They are men of conviction, experience, and discipline, who have known each other a long time and apparently work well together.

At the top is Mao Tse-tung, sixty-four-year-old son of a Hunanese peasant who as a student at Peking University in 1921 helped to found the Chinese Communist Party. He rose rapidly through propaganda work and organizational activity among the peasantry. In the early 1930's the inadequacies of the Moscow-directed leadership and the success of Mao in establishing a political-military base in Kiangsi caused the Party to make Mao its leader, a position he has held since.

Rigid Party Discipline

Beside their common experiences and their common interest in exercising authority, party members appear to be held together by basic ideological agreement and rigid party discipline. As the party constitution of 1956 states, the party is based on "Marxism-Leninism, historical materialism," modified to meet Chinese circumstances. Since all "correct" doctrine as well as all "correct" action by definition emanates from the Central Committee, it is natural that this Sinicized version of Marxism-Leninism should be praised throughout China as "the thought of Mao Tse-tung."

To an outsider it appears that, in most fundamental theories, Chinese Communist spokesmen adhere closely to the Marxist-Leninist line followed in the Soviet Union. The same classics are read, the same theories of revolution, party, and imperialism are expounded. Lenin's emphasis on tactical flexibility is admired but the model for the Communist state is found in Stalin's totalitarian institutions.

On the other hand the "thought of Mao Tse-tung" is no simple reiteration of Soviet Communist dogma. The building of a Communist Party on a peasant base, while unrecognized in theory, proved to be highly effective in practice. Mao's concept of a "new democracy," one in which a coalition of classes could build a mixed bourgeois-socialist society, differed from the orthodox concept of "proletarian dictatorship." Nevertheless, it proved much more acceptable to the intellectuals and property-owners of China, whose support in the beginning was found to be necessary. In fact, the relationship between economic classes, political attitudes, and political parties, which orthodox Marxists maintain is indissoluble, seems not to strike Mao with the same force. In his speech in 1957, entitled "Let One Hundred Flowers Bloom, Let One Hundred Schools of Thought Contend," for example, he again showed his independence by arguing that people of different classes were not fated inevitably to conflict with each other, but in fact could be persuaded to share the same political attitudes. In another speech, on "Contradictions," also in 1957, Mao asserted that even in a "socialist" society serious differences may develop between the "vanguard" and the "masses" and that the "vanguard" as well as the "masses" may need re-education.

Control of Information Media

The Chinese Communist Party has sought to insure ideological conformity and obedience primarily by persuasion.

Chief devices have been a controlled flow of information through the schools and media of communication and so-called "rectification campaigns." The latest was that inaugurated by Mao's "Hundred Flowers" speech. In this, as in earlier campaigns, the tendencies needing reform were pointed out by party leaders, primarily Mao Tse-tung. A number of texts were then specified for intensive private and group study. Study periods were followed by searching criticism, by Party members, of themselves and of others. The campaign ended with action to meet these criticisms.

Where persuasion is ineffective, however, the Party leaders have not hesitated to purge their opponents. Moreover, Party members are kept under constant surveillance. The control commissions on each echelon keep a careful audit of party activities and the Social Affairs Department of the Central Committee seems to function as a Party police. The Public Security Ministry seems also to survey Party members, for in February, 1958, it reported that between June, 1955, and October, 1957, some 5000 "counter-revolutionaries" had been found in the Party and another 3000 in its subsidiary, the Communist Youth League.

The Party makes its will felt in a number of ways. Basic policies are decided by its Central Committee. They are put into effect at the top by the CC members themselves, who, by dint of multiple office holding, occupy nearly six hundred of the key posts in every important national organization. They are acted on locally by party members and cadres who play a leading role in all local organizations. The acquiescence of the people is won by controlling their information, by waging intensive propaganda campaigns called "drives," and ultimately, if necessary, by coercing them through an intricate system of military and police controls.

The most important instrument, of course, is the government. According to the Constitution of 1954, "democratic centralism" is the guiding principle of organization for government as for party. Four echelons of government have been set up corresponding to those in the Party. The same congress-committee system is found also in the government: people's congresses at each level elect people's councils on their own level and people's congresses on the next higher level. People's congresses also share in the supervision of the activities of the militia, army, and public security forces at each level. Of course, real administrative power is concentrated in the councils, which must obey directives of higher councils on up to the State Council in Peiping. Similarly,

various echelons of procuratorates are responsible ultimately to a Supreme People's Procuratorate in Peiping and people's courts, to the Supreme People's Court. Control of the armed forces is likewise concentrated in the central Council of National Defense. Each of these central organs is responsible ultimately to the National People's Congress, but in such a way that none is beyond the influence if not under the direct authority of the chairman of the central people's government, Mao Tse-tung. And all are controlled by the members of the Central Committee of the Party.

Concentration of Power

It is a government in which power is concentrated to an extraordinary degree, enabling the party to manipulate it at will. It is also one which makes a pseudo-democratic appeal by providing for popular elections for local people's congresses and indirect elections for all other congresses and councils. While no real choice is offered, these elections seem to give the great mass of the people a false but desired sense of political participation. In addition, the campaigns which accompany the elections have been used effectively by the authorities to popularize their programs and to measure public reactions.

Controlled elections are but one of the instruments used by the Chinese Communists to reach the masses. More important for this purpose are the so-called mass organizations, which take the place of interest groups which develop in a free society. Outstanding examples are the All-China Federation of Trade Unions, the Communist Youth League, the All-China Federation of Democratic Women, and the Sino-Soviet Friendship Association. It is not too much to say that nearly everyone in China is involved in or is at least influenced by one or more of these bodies.

Like the Party and government, the mass organizations operate on the basis of "democratic centralism," so that they are controlled by their central executive committees, which in turn are led by party members. The specific purposes of these organizations vary, but all carry out government policies and enlist the support of their members in nation-wide "drives" or campaigns, such as the agrarian reform movement, the "Hate America Aid Korea" movement, the literacy campaigns, and the repeated "rectification" movements. They are powerful instruments of civilian mobilization.

The main channel of communication is the centrally controlled radio and press. The nerve center is the editorial office of the *Jen Min Jih Pao* (People's Daily),

which runs not only the *Daily* itself but disseminates the official views of Party and government leaders via Radio Peiping and the Hsin Hua (New China) News Agency.

Of course, to restrain recalcitrant members of society, there are the politically controlled courts and the public security forces, which are assisted in the cities by so-called urban inhabitants teams, into which all households are organized and which perform police as well as other duties for the state. To handle large disturbances there is available a massive militia and the regular forces of the People's Liberation Army, units of which are garrisoned in every province.

Entire Economy Directed

The Communists have also brought the entire economy under their direction. This direction is characterized by planning and collectivization. Planning boards were set up in nearly every government agency shortly after the take-over in 1949, but the predominance of private ownership and the runaway inflation made effective planning impossible. In 1952, after the inflation had been brought under control, a top-level State Planning Commission was set up and ordered to prepare the First Five-Year Plan, announced for 1953-57. The enormous difficulties inherent in such a project, however, delayed its formulation. In fact, no over-all plan was adopted by the National People's Congress until July, 1955. Now a Second Five-Year Plan is underway to guide development from 1958 to 1962.

Plans without controls would be useless. In the agrarian sector the Communists moved slowly, winning wide support by carrying out redistribution of the land. Then in 1953 the Party called for gradual conversion of private holdings into cooperatives and establishment of a few model collective farms, the announced goal being to complete collectivization in 1967. But Party activists were so successful that the program was speeded up. By July, 1956, it was announced that roughly two-thirds of the Chinese farming households were in collective farms and slightly less than one-third in producers' cooperatives. All private farming was to be eliminated by 1958.

In business and industry the Communists initially took over many enterprises from the Kuomintang, including all those formerly owned by the Japanese. They placed stringent controls over private enterprises and then cajoled or forced many of them into reorganizing as joint public-private businesses, in which dividends continue to be paid to private stockholders but in which control is transferred to the

state. Others were taken over as state-owned enterprises. By 1952 most heavy industry and foreign trade had been nationalized. In 1956 it was announced that virtually all private business had been eliminated, including banking, industrial, and commercial enterprises, and even handicraft production had been made cooperative. Thus, by the end of the First Five-Year Plan, practically the entire economy had been collectivized.

To what end and how successfully has the Chinese Communist Party used its economic controls? Fundamentally, it has been seeking to modernize China by following the Soviet model of emphasis on heavy industry. The Party's main aim has been to double the gross industrial production during each of its five-year plans by investing state capital primarily in producers' goods industries. According to the State Planning Commission, by the end of the First Five-Year Plan in 1957, a total of 825 industrial construction projects was begun, 448 being completed. Steel output was increased from 1½ million tons in 1952 to 5¼ million tons in 1957. Overall industrial production was raised to 223.4% of that in 1952. The chief increase was registered in capital goods industries, consumer goods production having increased (to 179.4% of that in 1952), but not at the same rate.

Five-Year Plan Ambitions

Goals for the Second Five-Year Plan, 1958-62, are equally ambitious, the long range objective being to equal Britain's industrial production in fifteen years. As the first year under the Second Plan, 1958 has been termed the year of the "big leap forward." The Chinese people are being called on to make extraordinary efforts to expand production. The aim for the year is to increase the industrial output by 14.6%. The chief stress is still on capital goods production, which it is proposed to raise 18.8% as compared with 9.7% for consumer goods production. But emphasis has been shifted from the construction of large-scale plants under central control to development of medium and small scale facilities under local authority, first in light industry, food, textiles, and construction.

These industrial gains have been made largely at the expense of agriculture and therefore of the vast majority of the Chinese people, of whom more than 80% live in the villages. Demands on agriculture during recent years have been severe. To secure raw materials for China's expanding industries and to secure capital for industrial development, during the last few years of the First Five-Year Plan the state

is estimated to have extracted by taxation and forced sales up to one-third of the farmers' total product. In addition to meeting these heavy exactions, China's farmers have also had to increase production simply to supply essential food for the expanding population, which is today approximately 650 million and growing at the rate of 2.2% or 13 million people annually. Natural calamities, especially large floods in 1954 and 1956, have added to the farmers' problems. It is not surprising that these economic pressures plus the social dislocations accompanying collectivization have produced widespread peasant discontent and stimulated both the withholding of grain and exodus to the cities.

The central problem, of course, is production. Since the state has used most of the "surplus" extracted from the countryside to develop industry, there has been little capital available for investment in agriculture. Expanded production has been sought chiefly by enlarging the area under cultivation. Large irrigation and flood control projects have been undertaken and repeated "drives" for improved manure collection, pest control, etc., have been launched. The result has not been impressive. During the First Five-Year Plan, the output of food grains, for example, is said to have grown at an annual rate of only 4.3%. Even this may be too high a figure since the greatest increases were registered in the early years when statistical methods were not well perfected. Moreover, the rate has been declining. The grain crop of 1957, for example, was about 185,000 tons; and although it was the largest in China's history, it represented the smallest rate of increase over the previous year of any year under the Plan.

These data show that collectivization of the land has not solved the problem of increasing China's agricultural production and that greater attention is going to have to be given by China's leaders to rural problems. State grain collection already has been slightly eased. Travel restrictions have been tightened. Hundreds of thousands of urban Party and government officials have been reassigned to rural areas. Other measures may have to be taken.

While the strains imposed on China's rural millions have been severe, it must be recognized that the overall national income of Red China appears to have gone up each year by about 9%. This has meant a per capita annual rise in income of 6-7%. When compared with the economic gains of postwar, democratic Japan, China's achievements are not so impressive; but, when compared with the long years of relative stagnation in China's past, they are impressive indeed.

While there is no accurate way to measure the true feeling of the Chinese people toward the Communist regime, reports from the mainland indicate scattered resistance from a number of groups. The non-Han Chinese have been particularly troublesome. The nearly 3 million Tibetans have proved recalcitrant. To conciliate them Peiping announced in April, 1956, that Tibet would be given regional autonomy and Chinese troops and party cadres would be withdrawn, and a number of executions has been announced from Peiping. Particular attention in 1958 was also given to intellectuals; a new course on Communist thought was introduced into the compulsory school curriculum. On the other hand, the regime seems determined to stamp out all opposition and appears stronger with each succeeding year.

North Korea

In North Korea, which embraces about half of the territory and about one-third (some 12 million) of the people of Korea, the Communists and their supporters have been building a new order, with the close guidance and help of the Soviet Union, Communist China, and other members of the Communist Bloc. Although several political parties are tolerated, including the Democratic Party and the Heavenly Way (Chondokyo) Young Friends Party, the dominant party is the North Korean Workers' Party, which is controlled by Kim Il-song and other Communist leaders. Generally in accord with the political pattern of the so-called "people's democracies" of eastern Europe, the highest organ of the state is legally a Supreme People's Assembly and its Standing Committee, which is chaired by Kim T'u-bong. Executive authority is exercised by a twenty-four-member cabinet under Premier Kim Il-song and five vice premiers.

While the Workers Party and the government claim to be independent, there is good reason to believe that North Korea is more or less a ward of the Communist Bloc. Militarily, of course, the regime was saved by Red China's intervention in the fall of 1950. Even after the truce the Chinese "Volunteers" stayed on to supplement as well as build up the North Korean forces and probably to exercise a general influence, over the regime. In the spring of 1958 the Red Chinese announced that they had begun to move out the "Volunteers" and that they would complete their withdrawal by the end of the year. It may be that the North Korean forces have been so strengthened that they are believed now capable of defending or extending the regime themselves.

Economically the regime is reported to

have received aid from eight of the Communist Bloc states, the largest grants coming from the Soviet Union and Communist China. This aid may well have been decisive, for North Korea has faced desperate economic problems. It has never been a self-sufficient area. Although rich in minerals and natural facilities for generating water power, it is relatively poor in arable land.

As is the habit of Communist-led governments, the North Korean regime has tried to rebuild and modernize its economy according to plan. In April, 1954, the Supreme People's Assembly approved a Three Year Plan. In its industrial phases, the Plan called for large-scale development of the metallurgical, machine, electrical, chemical, mining, and construction industries. While intelligible data are lacking, it was announced that by the end of 1956 the industrial production goals of the Plan had been overfulfilled by 14.4%, raising the 1956 total to 1½ times the level of 1949. At that time it was also announced that state-owned and cooperative enterprises accounted for 97-98% of the 1956 total, showing that socialization of industry was virtually complete. In the agricultural phases of the Three Year Plan, the restoration and expansion of irrigation facilities, the increased use of chemical fertilizers, and the raising of livestock were charted. It has been claimed that by 1956 farm production was 10.4% greater than in 1948. Socialization of agriculture appears to have proceeded at a slower pace than that of industry. By 1955 only half of the farmers were claimed to have entered cooperatives.

Likewise in diplomacy North Korea has given little evidence of independence. It is recognized only by the members of the Communist Bloc. In its foreign policy it has fitted its pronouncements to those of the Soviet Union and Communist China. The possibility of negotiating a truce in the civil war was suggested by the Soviet Union. And it was Communist China's Chou En-lai who, on a visit to Pyongyang in the spring of 1958, most recently reasserted the policy North Korea follows in regard to the problem of unification: he called for all foreign troops to be evacuated from the peninsula as preliminary to an all-Korean election to establish a new, unified government.

Forging the New Regimes

While imperialism and revolution for more than a century had been melting down the traditional ideas and institutions of the old Far East, it was not until the China Incident, World War II, and its

aftermath that the "new" Far East as we know it today was forged. Out of that holocaust, which began in 1937, and the wars and occupations which followed, the long Chinese civil war and international rivalry in China was ended; the Japanese Empire was destroyed and the Japanese people were forced into democracy; the Korean people were liberated at last, only to be torn asunder by civil war and intervention; the Philippines were given their independence; and the long line of western contenders in the Far East narrowed down to the Soviet Union and the United States.

The lack of authentic records and the partiality and spottiness of available eyewitness reports make any explanation of the Communist victory in China doubtful at best. Certainly the responsibility assigned to the United States by some Nationalist partisans in America has been out of all proportion to the magnitude of events far beyond such external control. This is not to say that the United States played an insignificant role. It was extraordinarily active, intervening more deeply and assuming heavier responsibilities in China from 1941 to 1946 than in any other friendly country in all its history.

Although the Chinese Communists had entered a "united front" with the Nationalist Government in 1937, there was no real settlement of political issues between them. Relations soon grew cold. Troops needed in the war against Japan were drawn off by both sides to blockade each other. When the United States entered the Pacific War in 1941, it was deeply concerned to bolster China's war effort. To this end it sent massive aid and, acting through General Joseph Stilwell, General Patrick Hurley, and others, it attempted to persuade both Communists and Nationalists to abandon their blockade, submit their troops systematically to retraining, and accept American command. But negotiations for this purpose were largely fruitless. Neither side trusted the other or saw the need for compromise. The Communists insisted on the prior formation of a coalition government. The Nationalists demanded that Communist troops first be placed under Nationalist control.

Perils Loom After War

As World War II ended the situation became even more explosive. The Russians occupied Manchuria and the Japanese were prepared to surrender vast expanses of strategic territory and huge supplies of arms. The American reaction was to continue aid to the Nationalist Government, particularly in transporting its forces to take over large areas in North China hith-

erto occupied by the Japanese, thereby strengthening its military position, but at the same time to send General Marshall in 1946 and then Ambassador Stuart to seek through mediation to achieve the "unification of China by peaceful, democratic methods." Agreement was reached on a temporary truce and a military reorganization plan, but no solution could be found to the bitter political rivalry. The Nationalists and their supporters went ahead to draw up a new constitution and on the basis of national elections established a new government in 1948, but the Communists and their supporters refused to participate. Full-scale civil war had already been resumed. In 1949 the Nationalist government fled to Taiwan, leaving the mainland to the victorious Communists.

Thus, while the United States had not thrown all its weight behind the Nationalist regime, it had intervened as deeply and as sympathetically as it could without sacrificing its chosen role as mediator. And yet it had failed. Some have charged that the explanation is to be found in Soviet aid to the Chinese Communists, but this was remarkably small. The real key to Communist victory would seem to be in China itself: in the chaos caused by a century-long disintegration of the traditional fabric of society and government; in the failure of the Kuomintang either to capture the imagination of the people by attending to their desperate social and economic problems and challenging them with new ideas and ideals, or to build a disciplined party and army able to expel the invader and unify the country; and in the success of the Communists ultimately to do both.

Korea Planning Absent

The planning, both American and international, which preceded the occupation of Japan was totally absent in the case of Korea. Except for the agreement at Cairo in 1943 that "in due course" Korea would be independent, no plans were made. It was solely for the purpose of receiving the Japanese surrender that the thirty-eighth parallel was established as a line of demarcation between the northern zone, which the Soviet forces occupied, and the southern zone, which the Americans occupied; and it was largely without foresight, at least on the American side, that life in the two zones came to be sharply differentiated. At the Moscow Conference in 1945 the two "super-powers" agreed to establish a joint commission to unify the two zones under a provisional Korean government supervised by a four-power trusteeship. But the two military commands could never agree on how this was to be done. The Americans in the south,

mindful of the political inexperience and ideological disunity of the Korean people, drifted into a military occupation. The Russians in the north took the opportunity to encourage the Koreans sympathetic to Soviet views to set up their own administration, dominated by a single, Communist-led party, and supported by a strong North Korean militia. By 1947 each power wanted to get out, but without of course sacrificing advantages to the other. Confident of the effectiveness of the new organizations in the north, the Russians were prepared to have both powers withdraw and leave the unification of Korea to the Koreans. The Americans feared the results of such a course and instead turned the entire problem over to the General Assembly of the United Nations.

The United Nations responded by voting to hold elections in Korea for an assembly which would be empowered to draw up a constitution and establish a government for the entire peninsula. The Soviet Bloc, of course, objected and refused to permit the U.N. representatives into North Korea. As a result, elections were held in South Korea only and a new Republic of Korea was established in 1948 with actual authority over South Korea only. In the north a rival "People's Republic" was formed. In the following year both Soviet and American forces were withdrawn. American aid to South Korea dwindled and in January, 1950, Korea was declared publicly to be no longer within the perimeter of United States' primary defense concerns.

Thus, at last, after generations of domination by foreign powers, from China and Japan to the United States and the Soviet Union, the Koreans were free to act in their own interests as they saw them. Unification was their first demand but the inevitable question was still: unification under whom? On June 25, 1950, the North Korean regime attempted to solve the problem by launching, undoubtedly with the approval and support of the leaders of the Soviet Bloc, a full-scale attack on South Korea.

The Korean War

The consequences of this attack were momentous. It brought about the immediate intervention of American forces, together with those of certain other powers with the official support of the United Nations, on the side of the beleaguered Republic of Korea. Their aim, at first, was simply to defend the integrity of the Republic in the south, but, by October, military successes led General MacArthur to demand the unconditional surrender of the North and the U.N. General Assembly to call for the establishment of a "unified,

independent, and democratic government" over the entire peninsula.

At this point the problem was compounded by the counter-intervention of the Communist Chinese, who saw the imminent destruction of the North Korean regime as a threat to their own interests. Chinese "volunteers" were rushed across the Yalu. With their support, the North Koreans rolled back the U.N. forces to the vicinity of the thirty-eighth parallel, but their attempted offensive in the South was no more successful than that of the U.N. in the North.

It was in consideration of this military stalemate and the possible cost of an expanded effort in terms of the world position of the powers and of the threat of

world war that the intervening sides came to consider the desirability of compromise. Nevertheless, it took two years of trying negotiations before an armistice agreement could be reached in 1953; and the reluctant compliance of the South Korean Government was secured only in exchange for a defensive alliance with the United States. The fact was, however, that neither Korean regime was yet prepared to lose its leadership for the sake of unification. When the eighteen belligerents, including the U.S.S.R., finally sat down in Geneva in April, 1954, to discuss a political settlement, the two sides could not agree. Divided Korea remains, like divided China, Indo-China, and Germany, a festering sore on the cold-war front which divides the world.

MOUNTING CRISIS IN THE MIDDLE EAST

By

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IF AMERICANS entertained any lingering doubts on how sensitized the government in Washington had become to affairs in the Middle East—an area that stretches from Libya, Egypt, and Sudan to the eastern frontiers of Iran in non-Soviet southwest Asia—these doubts should have been dispelled in mid-July, 1958, when insurgent army officers overthrew the Hashimi monarchy of Iraq. For on the next day American marines, under orders from President Eisenhower, sloshed ashore on the sun-beaten beaches south of Beirut, the capital of nearby Lebanon. Even more of a surprise than the Iraqi revolt itself, the unprecedented American action to shore up the tottering Western position in the Middle East was followed on successive days by the fluttering down of British paratroopers in the other Hashimi kingdom, Jordan, and by the hasty journey of President Gamal Abdel Nasser of the United Arab Republic to Moscow to confer with Soviet leaders. Premier Khrushchev promptly tried to turn the episode to Russia's advantage by branding the United States along with Great Britain as aggressors whose actions threatened to engulf the world with disaster. Efforts to deal with the issue in the United Nations Security Council or by convening a summit meeting proved stillborn. On August 8, the United Nations General Assembly held the Third Emergency Special Session in its history (four of the five special sessions

ever held by the General Assembly dealt with the Middle East). In a surprising display of unity on the part of the ten Arab countries in the Assembly, a resolution presented by them was adopted unanimously (80 to 0 with the Dominican Republic absent). The resolution called on members of the Arab League to observe the pledge of non-interference in one another's internal affairs contained in the League Pact and requested U. N. Secretary-General Hammarskjöld to make "such practical arrangements as would adequately help in upholding the purposes and principles of the Charter in relation to Lebanon and Jordan in the present circumstances so as to make possible the early withdrawal of foreign troops from the two countries." Hammarskjöld was also invited to study in consultation with the parties concerned the creation of an Arab economic development institution.

Beneath the surface of the recurrent Middle East upheavals since 1945, there appeared a pattern of mounting crisis that to all appearances had not yet reached its fullest intensity. As recently as World War II, the Middle East still lay securely within the Western—chiefly British—orbit. By a diverse yet flexible system of interlocking political and military controls that honeycombed the region, the United Kingdom had been able to harness the Middle East to the Allied war effort. But in the short space of a dozen postwar years this im-

perial system, which had taken a century and a half to erect, was shattered almost beyond recognition. To this decline the latest Iraq revolt practically dealt the *coup de grâce*. While not responsible for the toppling of Britain from its military and political eminence in the Middle East, Stalin's successors nevertheless lost no opportunity to exploit the situation. In the face of the menacing rise of Soviet influence, particularly in the Arab zone, the melting away of British power has left an unprepared and an unwilling United States with the primary responsibility for defending Western interests in the region.

Vital to West's Security

A glance at the map will readily disclose the strategic centrality of the Middle East for American security planners. Lying at the juncture of three continents, the Middle East can function either as a bridge or a barrier in international communications. This was demonstrated dramatically by the blockage of the Suez Canal for nearly half a year in the crisis of 1956-57. From its opening in November, 1869, to October, 1956, the canal served as the main transportation artery between Europe and Asia and Africa. It became, indeed, the world's most heavily traveled sealand by 1956, when in the first nine months an estimated 15% of the total international ocean-going traffic passed through the man-made ditch. By 1958, the movement of ships through the canal had returned to the pre-crisis rush, except that the conditions for transit were laid down unilaterally by Egypt without binding international agreement or control.

Through the Suez Canal have funneled chiefly raw materials from Asia and Africa and finished goods from Western Europe. Crude oil, most of it destined for our trans-Atlantic allies, accounted for about two-thirds of the Suez shipping. Petroleum grew steadily in importance as a source of energy in postwar Western Europe and by 1958 furnished nearly one-fifth of its over-all energy needs. Three-fourths of this oil was imported from the Middle East. Thus the military establishments of the NATO community and an ever-widening segment of its basic industry depended on Middle East oil. Nor did the postwar experiments in harnessing atomic energy, whose promise to mankind of untold new sources of power seemed close at hand, imply any absolute decrease in the future demand for petroleum products.

Middle East oil output rose from 8.1% of the non-Soviet world's total in 1945 to a yearly average of more than 25% in April, 1958. Of even greater significance the estimated petroleum deposits in the

region multiplied from 19 billion barrels, or 38% of the non-Soviet world's total in 1945, to 169.5 billion or over 70% twelve years later. In the United States in 1957, the continental and offshore proved reserves did not exceed 35 billion barrels, or roughly only two-thirds those in the tiny sheikdom of Kuwait.

Virtually all Middle East oil is being developed by companies of Western nationality, which by the end of 1957 had invested more than \$3.1 billion in fixed capital assets. Of this sum, almost one-half represented investment by United States companies, whose share—under prevailing concessions—of the estimated petroleum stores approached 60% of the regional total. The companies and the governments since 1950-52 have been sharing the profits equally. The direct revenues accruing to each in the Middle East as a whole in 1957 approximated one billion dollars, contrasted with \$940 million in 1956 and \$880 million in 1955. The fifty-fifty payments structure was being threatened in 1957-58 by the arrival in the region of new companies—American as well as Italian and Japanese—offering up to 75% of the profits to the host governments. But the impact of this development would not be felt until the newcomers discovered oil and started commercial production.

A more immediate danger stemmed from the fact that the major producing fields lay in countries adjacent to the Persian Gulf, four-fifths of the established reserves concentrated in Arab lands. Non-Arab Iran, the principal producing state before the Anglo-Iranian oil dispute (1951-54), recovered quickly after the settlement, so that by 1957 it was exporting an average of 717,500 b/d (barrels per day) or roughly 60,000 b/d more than in 1950, the last year of uninterrupted production before the crisis. But Iran in 1957 ranked third after Saudi Arabia with its average output of 1,209,757 b/d and Kuwait with its 1,177,150 b/d. In the Arab East are located not only the lion's share of proved Middle East oil deposits but also the routes of oil transit—the Suez Canal, and the pipeline systems that crisscross the non-oil-producing states of Jordan, Lebanon, and the Syrian region of the United Arab Republic—to Mediterranean and European markets.

On these routes and sources of supply rested the fueling of the NATO machine, the kingpin of the collective security system that the West has forged in defense against an expansive Soviet Union. Yet without an effective substitute for the defunct British imperial system, the United States was ill-equipped to serve as custodian of Western interest in so vulnerable a region. This helps explain the continuing

ambivalence of the United States toward Arab nationalism.

Arab Unity Nationalism

Arab nationalism is essentially a twentieth-century phenomenon. Nationalism came to Egypt, it is true, as early as the 1870's. But that was Egyptian, not Arab, nationalism. Indeed, Egyptians did not identify themselves in the nationalist sense with the rest of the Arab world until the late 1930's, when the Palestine problem began to provide a political focus for Arab nationalists everywhere. Even then the identification, official and public, spread slowly.

The hatred engendered in the Arab world against Zionism and Israel in the years following merely constituted the most extreme expression of a general sense of disillusionment in Europe that bred anger and hostility. Arab outrage, primarily in the Fertile Crescent (as the area encompassing present-day Iraq, Syria, Lebanon, Jordan, and Israel is known), was itself a product of the relatively brief experience with British and French mandatory rule after World War I. Arab nationalists viewed Zionism and Israel as an unwarranted intrusion and a beachhead, not of democracy, but of European imperialism. And because Israel was situated in the Fertile Crescent, these emotions mingled with the obsessive preoccupation with schemes for Arab unity that abounded in that particular area.

Nor is it surprising that the Arab League, the first unity project that saw the light, served from the outset as an agency of Egyptian foreign policy. The most populous Arab country, Egypt became the nub of Arab cultural life, providing leadership in religion, education, the professions, and, most recently, military organization.

The military junta that overthrew King Farouk in 1952 launched a comprehensive revolution in the internal life of Egypt but preserved the essential features of the external Arab policy. Under the aegis of the youthful army officers, the policy prospered as never before. With the aid of former Nazi German propaganda technicians, Radio Cairo became, after 1954, a potent force from one end of the Arab world to the other and played a major role in building President Nasser as the personification of Arab unity.

What particularly endeared him to the Arab masses was his seeming ability to trade body blows with the great powers of the West. Nasser first left Egypt in his official capacity as head of state in April, 1955, to take part in the Conference of Asian States at Bandung where he met

Jawaharhalal Nehru of India and Chou En-Lai of Communist China. From this time Nasser became an advocate of "positive neutralism" for Egypt and the Arab world. For him, as attested by later developments, this meant the acceptance of aid from the Soviet bloc to kick over all the traces of Western interests and influence in the Middle East.

Arms from East Bloc

Nasser's meteoric rise to fame in the Arab East started with his signing in September, 1955, of an arms deal with Czechoslovakia and the U.S.S.R. and reached its initial peak with the nationalization in July, 1956, of the Suez Canal Company. Egypt's military debacle in the Sinai desert at the hands of the Israeli Forces in the fall of 1956 and the absence for more than a year of new grand gestures of defiance temporarily checked the further growth of Nasser's popularity. This was illustrated in Jordan in April, 1957, in the backfiring of Egyptian efforts to suborn army officers and foment public rebellion against the monarchy. Young King Hussein emerged, for the time being at least, in firmer control than ever before of his almost landlocked country. Even as late as the following November, Radio Cairo, with an assist by Radio Damascus, proved incapable of goading Jordan's urban mobs into action. Further proof of Egypt's temporary eclipse could be found in this period in the willingness of all other Arab states except Syria and Yemen to resist the blandishments and pressures emanating from Cairo. Early in 1957, Iraq undertook with Western guidance to jam Cairo's anti-Western broadcasts and to initiate pro-Western counterpropaganda. In March, 1957, Lebanon endorsed the Eisenhower Doctrine for the Middle East, while the next month Saudi Arabia gave the United States Strategic Air Command the right to use the Dhahran air base for another five years. Moreover King Saud patched up his traditional feud with the Hashimi monarchs of Iraq and Jordan, and all four Arab governments publicly protested against Egypt's meddling in their internal affairs. Even the weak sister states of Libya and Sudan were emboldened to follow their lead.

Egypt and Syria, meanwhile, with Yemen tagging behind, were moving into positions of growing dependence on the U.S.S.R. for military, economic, and technical assistance as well as commerce. But while Syria seemed to be succumbing in the second half of 1957 to Russian control, Egypt appeared determined to keep the Communists at arms' length. At the same time, the elaborate propaganda machinery of the Egyptian military regime worked round

the clock to keep alive the image of Nasser as "Mr. Arab Unity." His big chance came in February, 1958, when those Syrian nationalists suspicious of Russia's motives engineered to place their country under the wing of Egypt in a fused United Arab Republic. This peaceful act of union between the two Arab lands electrified Arab nationalists who hoped to see the political union of the entire Arab world in their lifetime. When patriarchal Yemen immediately entered into loose affiliation with the U.A.R. under the general title of "the United Arab States," the way was opened for any Arab land of whatever political stripe or structure to follow suit.

Arab Federation Fails

The two Hashimi monarchs, Faisal and Hussein, sought as a countermove to merge their kingdoms into what was first called the Arab Federation, and later the Arab Union, of Iraq and Jordan. But in the prevailing nationalist atmosphere of Arab solidarity, highly charged with slogans calling for social reform, economic progress, the stamping out of privilege at home, and "positive neutralism" abroad, the pro-Western royalists of the Union had little hope of competing with the military "republicans" of Egypt and Syria. In a word, the U.A.R. stood for revolution, the pro-Western Arab governments for the *status quo*. The one had seized the offensive; the other responded defensively. Unfortunately for the West, Arab society was growing more unstable with each passing day, so that any policy aimed at preserving the existing order became the most costly and the least likely to succeed.

The overthrow in mid-July of the regime in Baghdad, which came as a shock to the Western world, especially to the United States, underscored how thoroughly the slogans identified with the U.A.R. had captured the popular imagination in every nook and cranny of the Arab East. This was so even in a country like Iraq, where the local conditions—a benevolent monarchy, assured oil revenues, and a high development potential—were most auspicious for a program of gradual change and peaceful modernization. Furthermore, the swift and solid success of the Iraqi *coup d'état*, which within a fortnight won the recognition of even Great Britain and the United States, struck fear in the hearts of all devotees of the *status quo* and made it highly doubtful that any of the remaining Arab kings would be able to keep their heads, not to mention their crowns, for any reasonable period into the future. Threatened, too, was the uneasy balance between Christians and Moslems in tiny Lebanon. The intercommunity

strife which erupted in mid-May, 1958, was exploited by the United Arab Republic to buoy up the Moslem rebels with propaganda and material support.

The Arab-Israel Dispute

At the time the Middle East crisis of July, 1958, erupted, Israel permitted American and British planes the right of passage through its airspace to Jordan. Although this signified the common opposition of the two Middle East governments to the U.A.R., rapprochement between Israel and Jordan was clearly as distant as ever. For no Arab state would dare even privately to flirt with Israel, given the prevailing Arab nationalist temper. After the noise of the 1956 Sinai-Suez explosion died away, the Arab-Israel dispute became relatively dormant. While the United Nations Emergency Force patrolled the Israel-Egyptian frontier and the Sinai coast of the Gulf of Aqaba, and the Arab states were engrossed in their own internecine quarrels, Israel was consolidating its position at Elath and using the opportunity of the newly opened gulf to bypass the Suez Canal and thereby weaken the Arab economic blockade.

But it required little imagination to foresee that the dispute might explode at any time with even greater ferocity than in the past, since none of the major issues inherited from the Palestine war of a decade earlier was yet formally resolved. The number of displaced Palestine Arabs because of internal growth was pushing toward a million. From its birth in 1948, Israel carried on without permanent boundaries. Originally created under United Nations auspices as a provisional expedient to terminate the hostilities, the Arab-Israel armistice system failed to revive from the near moribund state to which it sank in 1956. The city of Jerusalem, which many hoped might be placed under an international regime, remained more divided than ever. Having proved incapable of defeating Israel on the field of battle, the Arab League states sought to strangle their hated neighbor through economic blockade.

U. S. Sympathy for Israel

Sympathy toward Israel ran deep in the United States. The feeling of friendship was compounded of humanitarianism in support of the European Jews uprooted by the Nazis in World War II, of respect for the nascent state's military stamina against overwhelming numerical odds, of the Israelis' ingenuity in organizing available technical skills for the rational exploitation of their country's niggardly na-

tural resources, and of the pro-Western orientation of both the Israel government and a massive majority of the Israel public.

At the same time, the United States gave its blessings to national self-determination throughout the Arab East and was generous in its offer of economic and technical assistance to the newly sovereign Arab states, encouraging them to launch comprehensive development programs. Pro-Arab sentiment was widespread in the United States among missionaries whose churches had served Arab lands for well over a century, among those who had invested in the oil industry and other business ventures in the Arab East, and among an expanding number who were disturbed by the stubborn phenomenon of an Arab refugee population.

The United States practice of distributing favors alternately to the two antagonists elicited little approval from either party. Most Arab nationalists were persuaded that the United States was incurably pro-Israel, a conviction that could not be shaken short of full endorsement of their hopes of eliminating the new state altogether. In their eyes, Israel was America's spoiled child and was kept alive artificially through America's mistaken generosity. The Israelis for their part tended to accuse the United States of over-indulging Arab nationalist extremism and of thereby delaying a formal peace settlement.

The reasons for United States pussy-footing were simple enough. The possession of strategic real estate and of oil gave the Arabs diplomatic advantages in a period of world tension. Washington, therefore, was prone to show greater patience with the Arabs and to attempt placing Israel in cold storage. Yet the United States was far from ready to abandon Israel. Rather, it was argued that the avowed American policy of "friendly impartiality" was designed ultimately to lead the disputants to an accommodated settlement.

Arab States Armed

The American and Soviet tactics after 1955 of competing to arm the Arab states, while withholding modern weapons from Israel, symptomized the renewal and intensification of the cold war in the Middle East. It had already contributed to the fighting in Sinai in the fall of 1956. Israel's fears were assuaged by its defeat of the Egyptians in Sinai and later by the continuing purchase from France of military weapons of recent design. But with "U.A.R.-ism" on the rampage in the summer of 1958 and the consequent intensification of Soviet-American rivalry in the Middle East, Israel could be expected to become

increasingly vigilant for its own security. Since its north and south are joined by a narrow corridor—no wider than ten to twelve miles—abutting the Jordan frontier, little wonder that Israel watched that frontier with growing anxiety when Jordan's lease of life seemed about to run out.

The Baghdad Pact

No less troubled by the Iraqi *coup d'état* were Turkey and Iran who together with Pakistan and Britain were founding members of the Western-inspired multilateral alliance in the Middle East, commonly known as the Baghdad Pact. The new government of Iraq, while not denouncing the pact, did not participate in the meetings of its Middle East members in Turkey on the very day of the overthrow of regime nor in England two weeks later. Moreover, Iraq's military leaders, dedicated to Arab unity nationalism, could be expected to adopt the U.A.R.'s policy of "positive neutralism," if not in its pristine purity, in an easily detectable variant. The loss of Iraq would eliminate the one Arab member from the Baghdad Pact.

The British surrender in October, 1954, of the base in the Suez Canal zone marked the culmination of a process of British military contraction in the Middle East that had begun with the evacuation in 1946 of wartime garrisons in Syria and Lebanon, the withdrawal in 1947 from Cairo and Alexandria, and the abandonment to chaos in 1948 of the Palestine mandate. The piecemeal dismantling of the British military system conformed to postwar realities. Imperialism had become outmoded in the West, and the depleted British exchequer could no longer afford far-flung bases in the face of rising costs.

But the headlong decline of British power deprived the West of a means—tested and proved in World War II—of safeguarding its regional interests and of integrating the Middle East into its global military arrangements. Efforts were therefore made in 1951-52 to establish a comprehensive collective security system for the Middle East with the local states and the Western powers participating on an equal basis. But these efforts did not materialize because the Arab states in particular shared neither the West's fear of Soviet aggression nor the desire to contain it. The Arab governments instead tended to view Britain and France as the aggressors because of their continued controls in scattered parts of the Arab world.

Secretary of State John Foster Dulles then sought in 1953 to apply the collective security principle to the Middle East on

a-segmental basis, on the theory that "a sense of common destiny and common danger" already pervaded "the northern tier of nations" along the Soviet frontier. With American encouragement and assistance, Turkey, Iraq, Iran, and Pakistan joined Britain in 1955 to form the Baghdad Pact. But the very creation of the organization, designed to circumvent the resistance of the remaining Middle East states and their immediate neighbors to collaboration with the West, merely made most of those states—notably India, Afghanistan, Syria, and Egypt—predisposed to accept favors from the U.S.S.R. and sharpened the tensions in the Arab-Israel area. Egypt, which became the savage foe of the regional collective security system, tirelessly cultivated the theme that Iraq's membership represented disloyalty to the Arab unity cause. It thus became an avowed purpose of Egyptian foreign policy, with the Kremlin's hearty endorsement, to destroy the system and to sever Iraq's ties to its pro-Western non-Arab Moslem neighbors hardly less than to the West itself.

Iraq's defection in July, 1958, threw the remaining Moslem members of the Pact into a state of consternation. Mere affiliation with the West excited lively opposition in Pakistan and Iran, where many felt that a policy of neutrality in the cold war might bring larger benefits than alliance. This feeling seemed likely to grow firmer, as the United States and Britain proved incapable of holding the line in the Middle East. In Iran, moreover, republicanism attracted many supporters, who in 1953 had come close to deposing Mohammed Reza Shah Pahlavi. While the young shah's popularity was more than restored in the intervening years, the easy triumph of republicanism in Iraq could hardly fail to revive the anti-royalist cause in next-door Iran.

Effects of Iraqi Crisis

Even in Turkey, where since 1945 government and public alike were united in approving all measures designed to hold in check the Russian behemoth posing a constant threat from the north and where the value of alliance with the United States and the West was almost universally appreciated, the Iraqi crisis brought to the surface differences of attitude toward external affairs. Opposition politicians openly found fault with the Baghdad Pact and the government's hasty approval of American and British military action in Lebanon and Jordan. The Turkish government, however, rather than scrap the pact, seemed determined to put teeth into it by committing its own troops, if need be. Thus in October, 1957, the Turks had rein-

forced their military units along the Syrian border as a demonstration against Syria's consorting with the U.S.S.R. Again in mid-July, 1958, the Turkish government advocated the adoption by itself and its allies of a firm policy, although it soon reversed itself along with the other Baghdad Pact powers and the United States to recognize the republican regime of Iraq.

The United States never joined the Baghdad Pact, whose formation it did so much to sire, but merely agreed to sit on its economic and counter-subversion committees and, after the 1956 Suez crisis, on its military committee as well. This straddling of the issue deprived the organization of military effectiveness and exposed the United States to criticism as much from the adherents of the pact as from its enemies. After the 1958 Iraqi crisis, the United States, while continuing to avoid full membership, nevertheless went a step further and accepted full obligations under Article 1 of the Pact, which, in effect, made the United States a guarantor of the defense and security of the Middle East member states. In addition, the United States granted Turkey \$234 million of aid and was instrumental in Turkey's obtaining a further \$100 million from the Organization for European Economic Cooperation and \$25 million from the International Monetary Fund. This aid was intended to help our Middle East ally to cope with the baffling economic and fiscal dislocations attending its rapid development program.

Soviet Intervention

The Baghdad Pact provided the Russians with a long-sought opportunity for meddling in the affairs of the Middle East. If we are to understand Russia's actions in the Middle East, we must keep in mind the Kremlin's obsessive anxiety over "capitalist encirclement." The apprehension over the Middle East frontier, where no submissive zone separates the U.S.S.R. from the outside world, is perhaps greater today than anywhere else along the Soviet periphery. The Middle East adjoins vulnerable districts of the U.S.S.R., where essential industries and raw materials are concentrated.

Immediately after World War II, the Kremlin tried, as in Eastern Europe, to dismember Iran and convert Turkey into a satellite. Stopped by the determined Western stand, within the United Nations and beyond, the Russians lost initiative in the Middle East for nearly a decade. Nevertheless, Moscow supported every move that relieved Britain and France of their bases, influence, and interests in the region and that prevented the United States from becoming involved in the Middle East.

Because of the absence of Soviet political treaties, formal military commitments, and direct commercial investments, the Russians could afford to be totally unrepresed in their dealings with Middle East countries and reversed their policies at will. This was amply demonstrated in the Arab-Israel zone. The U.S.S.R. championed the cause of Israel in 1947-49 politically by undeviating support at the United Nations and materially by permitting the sale of Czech arms to the fledgling state. Since 1953, the Russians have endorsed the Arab position at the United Nations without qualification as part of a deliberate bid for Arab nationalist favor.

The Russians finally scored a diplomatic breakthrough to the strategic nerve center of the Middle East, at the time of Nasser's deal in 1955 for Soviet orbit arms. The Soviets for the first time were in the comfortable position of being able to direct anti-Western operations in the Middle East by remote control, without any prior communication or conquest. The United Arab Republics, under Nasser's leadership, by spreading the gospel of "positive neutralism" and by vowing to overturn the status quo in the Arab East and to sweep out every last crumb of Western interests, were carrying out the very purposes that the Kremlin sought to foster. The succumbing of Iraq to Arab unity republicanism, with its implications for the remaining Arab monarchies and for republican Lebanon, brought the U.S.S.R. that much closer to its goal.

It was ironical that the U.S.S.R., which alone among the Great Powers engaged in imperialist expansion since 1945 and, unlike Britain and France, surrendered no territories wrested from Middle East peoples in an earlier period, should be able to sell itself in the region as the supreme advocate of anti-imperialism. This was especially true in the Arab sector, for the nearly 20% of Soviet territory that once formed part of the Middle East had been wrested, not from the Arabs, but from the Turks and Iranians. Yet the United States, with no territorial ambitions—past or present—in the Middle East, seemed hardly able to take any counter-action without inviting accusations of imperialist interference.

United States Difficulties

Prior to the Suez crisis of 1956, the United States tried with diminishing success to coordinate its Middle East policies with those of Britain and France and tended, in general, to rely on the military power of the United Kingdom in the region. Though accepting more and more financial commitments, the United States nevertheless continued loath to undertake

military responsibilities. But the determined stand taken by Washington, within the United Nations and outside it, against the British and French military action in Egypt over Suez so thoroughly weakened the principle of coordination among the Western powers and the prestige of the United Kingdom in the Middle East, that the United States had to move into the breach, if any Western interests were to be salvaged.

The first step in this direction was the doctrine promulgated by President Eisenhower on Jan. 5, 1957, and approved by the Congress two months later. It was designed to warn Russia and the states of the Middle East that the United States would prevent, by the use of American troops if need be, any segment of the region from falling behind the Iron Curtain. Moreover, to avoid the stigma of imperialism that the nationalists were bound to attach to any unilateral declaration by the United States, the doctrine made it clear that American action would be taken only by appeal from a Middle East state and that American policy would be developed in partnership with the countries of the region.

But the fact remained that the immediate menace to the Western position in the Middle East did not come directly from "international communism" or Soviet aggression. Instead, it came from Arab unity nationalism under the leadership of the United Arab Republic, aided and abetted by the Soviet Union. For dealing with this kind of threat the Eisenhower Doctrine furnished no adequate techniques. It could not prevent the Iraqi revolution which was, in effect, anti-Western in its motivation and which found firm support in the U.A.R. and, once it had taken place, in the Soviet Union as well. Nor could the commitment of United States troops under the doctrine and by invitation of the government of Lebanon, as occurred in July, 1958, assure us of preserving the close friendship of the one government that had unconditionally approved the policy. For the moment United States troops were withdrawn from Lebanon and British troops from Jordan, the days of the pro-Western regimes of both countries were in jeopardy. Moreover, France's failure in 1958 to join the United States and Britain in common action, just as the American failure in 1956 to join Britain and France, gave the Soviets a new lever with which to pry apart the Western alliance.

Thus it appeared in mid-1958 that the American government had still not come to grips with the basic issues of the Middle East, even though it viewed the deteriorating situation as sufficiently grave

to call for the dispatch of American forces to the scene. We seem to have been maneuvered, partly through our own errors of judgment, into a position of safeguarding the status quo in a highly revolutionary situation, and we were still continuing to espouse the strategy of keeping the U.S.S.R. out of the Middle East, long after the Russians had found the means for meddling there by local invitation. In this context our NATO allies' reliance on

Middle East oil—with our apparent endorsement—has hastened the day when we shall have to find natural or synthetic substitutes or accept Middle East oil on Arab nations' terms. As the year 1951 wore on, the prospect loomed larger than the region with its invaluable oil deposits, military bases and intercontinental communications presents an extremely dangerous threat to the West.

Oil Data for Major Operations in Middle East

Country	Proved reserves, Jan. 1953 (billions of bbls.)	Participating companies	Company nationality
1. Kuwait.....	60	Gulf Oil (50%)	U. S.
2. Saudi Arabia.....	45	British Petroleum (50%)	U. K.
		Standard Oil, N. J. (30%)	U. S.
		Standard Oil, Calif. (30%)	U. S.
		Texas Oil (30%)	U. S.
		Socony Mobil (10%)	U. S.
3. Iran.....	32	British Petroleum (40%)	U. K.
		Royal Dutch-Shell Group (14%)	U. K. (40%)
		Standard Oil, N. J. (7%)	Neth. (60%)
		Standard Oil, Calif. (7%)	U. S.
		Texas Oil (7%)	U. S.
		Socony Mobil (7%)	U. S.
		Gulf Oil (7%)	U. S.
		Compagnie Française des Pétroles (6%)	France
		American Independent (0.55%)	U. S.
		Getty Oil (0.55%)	U. S.
		Atlantic Refining (0.55%)	U. S.
		Hancock Oil (0.55%)	U. S.
		Richfield Oil (0.55%)	U. S.
		San Jacinto Petroleum (0.55%)	U. S.
		Signal Oil & Gas (0.55%)	U. S.
		Standard Oil, Ohio (0.55%)	U. S.
		Tidewater Oil (0.55%)	U. S.
4. Iraq.....	25	British Petroleum (23.75%)	U. K.
		Royal Dutch-Shell Group (23.75%)	U. K. (40%)
		Compagnie Française des Pétroles (23.75%)	Neth. (60%)
		Standard Oil, N. J. (11.87%)	France
		Socony Mobil (11.87%)	U. S.
		Participations & Investments (Gulbenkian legateses) (5%)	U. S.
5. Qatar.....	1.75	Same as Iraq	U. K.
6. Kuwait-Saudi Neutral Zone	5.00	American Independent (50%)	.....
		Getty Oil (50%)	U. S.
7. Bahrain Islands.....	0.20	Standard Oil, Calif. (50%)	U. S.
		Texas Oil (50%)	U. S.

SOUTHERN ASIA, 1958

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MOST OF Southern Asia is just emerging from the chrysalis of Western domination. Among the countries of the area, Afghanistan and Thailand alone managed to preserve their independence throughout the colonial period. The others have won freedom only during the past twelve years.

But independence has not brought tranquillity to Southern Asia. This vast arc of backward nations in revolution still faces the gigantic tasks of creating modern, effective political institutions; of developing and diversifying their primitive economies; and of achieving a new social synthesis. At the same time the peoples of the area have begun to cast off their ancient lethargy. They are awakening to the possibility of change. Progress—in the sense of more schools, more hospitals, greater productivity, higher levels of income, industrialization—has become a transcendent ambition. There is a restlessness in Southern Asia, spreading out from leadership groups in the principal cities to the masses on the countryside, which imparts an urgency to politics. The alternative to meaningful progress must eventually be descent into violence and totalitarianism.

Such conditions afford almost limitless opportunities for Communist exploitation. Since the end of World War II, local Communist movements, responsive to the directives of Moscow and Peking, have been ceaselessly active throughout most of Southern Asia, and Communist-led rebellions have occurred in several countries. Meanwhile the brooding colossi of Communist China and Soviet Russia hover over the whole area. To be sure, the likelihood of overt Communist aggression in the foreseeable future is not very great. A frontal assault on Southern Asia would seem foolhardy at present in view of the alternatives open to Communist strategy. Nevertheless the danger of open attack cannot be entirely discounted.

Political instability has been a constant problem. The activities of local Commu-

nist movements, already mentioned, and the vague threat of external aggression in part account for this phenomenon. But communism is not the only catalyst of instability. Ethnic antagonisms have been another and potent source of trouble. Perhaps more important, political factionalism has been rife since independence, and there exists in the area a predisposition to employ force for the settlement of partisan differences. Mere banditry has also become a serious problem in many places.

Experiments in Democracy

There has been considerable experimentation with democracy in Southeast Asia, and on the whole significant progress has been made. Today almost every country in the region publicly confesses the democratic faith. Most of them have conducted national elections, and their governments are ostensibly based on the will of the people as expressed at the polls. It will be a long time, however, before democracy in Southern Asia corresponds to familiar Western standards. The whole history of the area, with its emphasis on authoritarian rule and the supreme importance of the collectivity (family, village, nation) as against the individual, is antithetic to the growth of modern democratic institutions. Mass illiteracy and ignorance of substantive issues also limit intelligent popular participation in national political life. A vast gulf separates the sophisticated urban leadership classes and the bulk of the rural population. Many of the new governments are semi-authoritarian in character, and civil liberties are restricted in various degrees.

All the countries of Southern Asia are underdeveloped in the sense of being primary producers in which per capita output is very low. And in all of them the revolution of rising expectations is rapidly gathering force. It would be difficult to exaggerate the magic of the term "eco-

conomic development" in Southern Asia. It connotes hope for a better life, equality with the West, progress. The nations of the area look for the end of subsistence existence, to diversification of their monoculture economies, and to at least a moderate degree of industrialization. In large measure the fate of the new governments of Southern Asia hinges on the extent to which they can bring about meaningful economic development within their respective territories.

Yet when it comes to performance, the record since independence has been decidedly mixed. India, now launched on its Second Five-Year Plan, has made noteworthy progress and the outlook is for continued advance despite growing difficulties. But elsewhere the picture is much less encouraging, although there has been some measureable growth in Burma, the Philippines, and a few other countries. For the area as a whole it is doubtful whether development has done more than keep pace with the phenomenal expansion in population. Nor are the prospects much brighter in the years immediately ahead. The reasons are not difficult to find: too little capital, inadequate technical and managerial skills, and economic and social institutions incompatible with the requirements of a dynamic, expanding economy. Widespread unrest and insecurity have also been inhibiting factors, as well as a natural reluctance to make essential sacrifices.

Rise of Neutralism

Neutralism has won many adherents in Southern Asia. Only recently liberated from colonial rule, the peoples of the area tend to react emotionally to the global power struggle in which their former masters, the leading Western nations, are involved. Many Southern Asians are at least as fearful of a recrudescence of Western imperialism as they are of its Communist form. Even where political leaders have some understanding of the Communist danger, they would usually argue that subversion is a greater menace than aggression, and that it can be dealt with only by long range programs of political, economic and social reform, not by military alliances.

Southern Asians are apt to say that neutralism contributes positively to the amelioration of cold war tensions. Newcomers to the world stage, they have had little practical experience in the vicissitudes of interstate relations and often betray a lack of understanding of the role of force in foreign affairs. They overvalue the power of words and a strong moral position. They desperately want peace. Overshadowed by Soviet Russia and Com-

munist China, and lacking the assurance of outside protection, they are inevitably tempted to come to terms in the hope that a friendly, neutral posture may safeguard their territorial integrity and political autonomy against infringement by their great northern neighbors.

The persistent strength of local Communist movements should also be remarked on. At bottom the continuing appeal of communism in Southern Asia is to be explained by conditions of political instability, economic depression and social unrest prevalent throughout much of the area, and the feelings of inadequacy and frustration to which they give rise. The Communists strive to associate themselves with deeply felt local aspirations for progress and a better life. They claim to have discovered the secret (with Russia and mainland China as visible proofs) whereby backward and underdeveloped nations may lift themselves by their own bootstraps. Communism is a satisfactory doctrine emotionally because it is fundamentally anti-Western. It projects a facile and persuasive theory of imperialism which places the entire blame for Southern Asia's troubles squarely on the former colonial rulers. Finally, in an area where the organization of political parties is for the most part still at primitive levels, the well-financed, rigidly disciplined and skillfully led local Communist Parties give their cause important advantages over competing doctrines and movements in the struggle for power.

Meanwhile, Communist strategy in Southern Asia as elsewhere in the world has become much more subtle and flexible in recent years. Moderation has replaced intransigence and rebellion as the keynote of Communist policy. The Communists appeal for cooperation with non-Communist groups in the attainment of common goals. They strive to associate themselves with Southern Asia's passionate yearning for peace. Neutralism is encouraged. The West, especially the United States, is blamed for prolonging the cold war, while the Communists offer friendship and aid with no strings attached. In many countries of the area this strategy has enabled the Communists to recover the strength lost in abortive and unpopular insurrections, and to lay the bases for more widespread support than they have ever before enjoyed.

We have started this section with India since she is the largest nation and the leading power of the Southern Asia group. All other nations of this area follow here alphabetically.

India

The Union of India is the second most populous nation on earth (approximately 400 million). From the achievement of independence on Aug. 15, 1947, until Jan. 26, 1950, India was a dominion within the British Commonwealth of Nations, but thereafter became a "sovereign democratic republic" while retaining membership in the Commonwealth.

The Prime Minister is Jawaharlal Nehru, who assumed office Aug. 15, 1947, and has held it continuously ever since. The Congress Party has dominated national politics since independence. In the elections of March, 1957, the Congress won 365 out of 488 contested seats for the House of the People; Communists, twenty-nine; Praja (Democratic) Socialists, nineteen; with the remaining distributed among minor parties and independents.

India is made up of fourteen states and six federal territories. The states represent largely linguistic divisions and reflect the immense diversity of the subcontinent. There are at least fifteen principal languages in the country, and hundreds of separate dialects. Hindi, the mother tongue of a third of the population, may one day emerge as the national language. But at present, English is used among the educated. On the other hand, India possesses substantial religious unity with about 85% of the population being Hindus.

The Indians have a powerful tradition of academic learning acquired during British hegemony. Cambridge, Oxford, and London Universities graduated thousands of Indians, and in addition India itself built a number of first-rate academic institutions. There were eighteen universities and 532 colleges at independence. Thus, at the top levels India had a respectable supply of trained people. If there were too many lawyers or college degree "clerks," there were also those who could, to paraphrase a comment of Nehru's, talk, think about, and take part in the atomic age "while living in the cow-dung era."

Two men have dominated the recent history of India. Mohandas K. Gandhi, the Mahatma (see p. 714), who was assassinated on Jan. 30, 1948, by a Hindu fanatic, was educated in England and practiced law in the highly charged, discriminatory atmosphere of South Africa. During this period he learned from Thoreau the virtues of peaceful "civil disobedience" and forged it into a political weapon called *Satyagraha*, or truth-force, non-violent action. With this weapon

Gandhi in time won the love and admiration and following among his countrymen that eventually made the British quit India.

The other is Nehru. A Brahmin by birth, he spent much time in British jails for nationalist activity. While in prison during World War II, he wrote one of his most important books, *The Discovery of India*. In it, Nehru asked whether India had some "well of strength" on which to draw in its future development, or whether his country was like "an aged person" merely playing "the part of a youth." He found true vitality chiefly among the "Americans, the Russians, and the Chinese;" and of these three he was more "astonished" by the vigor of the Chinese.

These two men, Gandhi and Nehru, symbolize India today. The idea of moral force was at the heart of Gandhi's teaching and no Indian in contemporary public life, including Nehru, can remove himself very far from the symbol of Gandhi. Even the Indian Communists have tried to wrap themselves in some way in the Gandhi mantle.

But Gandhi passed from the scene virtually on the day after independence. It is, rather, Nehru's resolve to make India "count for a great deal or not count at all" that, even more than the Mahatma and his teachings, has been the mainspring of Indian action since independence. That is why Nehru himself is not only Prime Minister, but also Minister for External Affairs, personally in charge of the Department of Atomic Energy and virtually his own minister for national planning as well. No middle position for India or for him; it does not attract him. Nehru's conception of India has steadily demanded, and in increasing measure received, the attention of a fascinated world. He has determined that India will play a major role not only in Asia, but also in the counsels of the nations everywhere, including the United Nations. His foreign policies are less the expression of some supposed wellspring of Indian spirituality or idealism than the reflection of his determination to make India a great power recognized and accepted as such, a power determined to preserve its own security in its own way.

Foe of Imperialism

India can be found invariably ranged against what it considers to be imperial-

ism, especially of the Western variety, as in its outrage over the Anglo-French attack on Suez in 1956. Only belatedly, and in part forced by domestic public opinion as much as by loss of face in the non-Soviet world, did official India also speak out against the brutal Soviet suppression of the Hungarian revolt in the same year.

India yielded to Communist China's sphere of influence in Tibet but hastened to protect its own in Nepal, over whose foreign relations it exerts considerable control. New Delhi helped to convene a British Commonwealth Conference in February, 1949, to support Burma's sorely tried government then under severe attack by communist and other rebels; a primarily Asian conference later the same year to support Indonesia's claims against the Dutch; and joined with the other Colombo Powers (Burma, Ceylon, Indonesia, and Pakistan) to sponsor the April, 1955, Bandung Conference, after having agreed in June, 1954, with Communist China on the "five principles of peaceful coexistence."

While India actively participates in the Afro-Asian bloc, it is in principle opposed to all pacts and bloc arrangements. Its sharpest barbs are reserved for the Southeast Asia Treaty Organization (SEATO) and the Baghdad Pact, in part because these are viewed as bringing the cold war closer to Asia, but above all because they are considered to endanger the security of India itself since Pakistan is a member of both of them. The real issue here, of course, is Kashmir. In Indian eyes, Pakistan is the aggressor in Kashmir; the U. N.-arranged cease-fire stopped a shooting war in what India regards as an Indian state. SEATO and the Baghdad Pact not only put Pakistan in a position to attack India—so the Indians believe—but also force India to spend abnormally on its own defense establishment, and thus divert funds which are desperately needed for economic development purposes at home.

It is in this context of dynamic self-assertiveness and as an Asian geopolitical center that India pursues its foreign policy. Bitter personal experience with the savagery of race prejudice underlines the demands of India's leaders for equality everywhere in the world, and reinforces their innate suspicion of the West. India's long struggle against the British strengthens the cry against imperialism and colonialism. Indian conceptions of mediation and compromise help to explain New Delhi's role in Korea, Indo-China, and the U. N., and as a third force or bridge between the power blocs.

Since Stalin's death, Nehru has hoped for the possibility of a thaw in the cold war. His comment on the execution of

Nagy ("most distressing"), and his tart remark at the May, 1958, meeting of the All-India Congress Committee about "the hundred flowers" of Mao becoming "weeds to be pulled out," may be the heralds of disillusionment with Khrushchev's leadership. Correlatively, despite vocal Indian disapproval of such U. S. policies as SEATO, nuclear weapons testing, the Baghdad Pact, etc., relations between the two countries have perceptibly improved since Nehru's visit with President Eisenhower in December, 1956.

Nehru is now 68; he has already made India count a "great deal" on the world stage.

Challenge of 20th Century

Although many Indians, especially those in contact with non-Asians, voice pride and satisfaction at the diplomatic position achieved by India in the past decade, this is not the major concern of most Indians at home. There the dominant issue is the success or failure of the truly staggering effort being made to propel India economically into the twentieth century. This is the major challenge and the true test of India's vitality. Unless success here crowns its efforts, India in the final analysis will not count at all.

It is difficult even to grasp the magnitude of India's economic task. The most overwhelming problem, India's Planning Commission frankly admits, is "mass poverty." At the time of independence, perhaps 5% of the population had a living standard which, even by India's humble criteria, could be regarded as satisfactory. A monthly income of \$60 was the privilege of a few. School teachers earned \$20 to \$30 per month, a young engineer \$80 to \$100. For the 95% of the population below this level there was "the vast sea of poverty. . . . Even among Asian nations, the poorest in the world, India stood nearly at the bottom in any comparative scale of prosperity." About 75% of the labor force was in agriculture, 10% in mining, manufacturing and hand trades, 9% in government and other services, and 7% in commerce and transport. Poverty reinforced inefficiency. For example, in India a farmer produced about 1200 pounds of rice an acre, in China twice that, and in Japan better than 3½ times as much.

In March, 1950, Nehru's government established a Planning Commission "to promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production, and offering opportunities to all for employment in the service of the community." One year later the Commission presented its First Five-Year

Plan (see Table 1). It called for new public investment of \$4.3 billion, which, allowing for substantial increases in private investment and also for anticipated population growth, would raise national income by 11% (a modest 2% improvement per year). Although like all other underdeveloped countries India was fascinated by steel mills and power plants as symbols of industrial development, nonetheless it resolutely turned to agriculture, irrigation, land reclamation, and community development as the core of the program.

The Plan went into operation as of April 1, 1951, and was completed March 31, 1956.

Fortunately the weather was favorable for agriculture, food production increased by 11% and agriculture as a whole by 19%. Other indices also rose. For example, more children went to school. At the beginning of the First Five-Year Plan, 42% of children between 6 and 11 were in school. This figure rose to 51% at the end of the Plan. Only 14% of children from 11 to 14 were in school in 1950-51. This figure was 19% in 1955-56. Although investment in industrial production rose steadily (38% over 1951), factory employment lagged and for a time India faced a considerable unemployment problem. But the Plan was a psychological and in many major and minor ways a material success.

The First Five-Year Plan could not have succeeded without external assistance. This aid came primarily from the West. Not until February, 1955, did the U.S.S.R. enter the picture, but then its offer to build and equip a steel plant at Bhilai on terms more favorable than those hitherto secured from the West was widely hailed in India. Western resources made available to India amounted to approximately \$625 million during the Plan period. Of this sum U. S. assistance, excluding private investments, reached about \$500 million. The U. N. Technical Assistance Program contributed \$5.6 million.

Another debate followed the formulation of the Second Five-Year Plan. By this time many eyes in and out of India were focussed on the decisions being made. Economists differed as to the quantities and allocation of investment, on the capabilities of India to sustain growth with democracy. Comparisons were consciously made between India's progress and the reputed progress of Communist China. India decided to move ahead, but not at the price of communism; her Second Five-Year Plan continues in a democratic framework. It envisages investment in the public sector more than twice as great as during the earlier Plan, to be allocated as per Table 4.

In this plan allocations to all parts of

the economy have been vastly increased and the emphasis upon direct industrialization sharply stepped up. India expected to finance the program mainly from internal resources, but would still require \$1,680 million in external assistance. Toward this gap, New Delhi had a Russian loan of \$126 million, a \$70 million credit from Great Britain plus about \$420 million available in sterling reserves, and a favorable balance of payments in 1956 amounting to almost \$200 million. The rest, \$800-900 million, would have to come from the United States and other Western sources, including the International Bank. In August, 1956, the United States and India concluded an agreement for the "sale" of surplus commodities for local currency amounting to \$360 million. A substantial portion of this will be loaned back to India. In addition the United States continued in fiscal years 1957 and 1958 its aid grants amounting for the two years to approximately \$150 million, and extended an Export-Import Bank loan of \$150 million. The International Bank has also helped.

In August, 1958, five nations (the United States, Britain, West Germany, Japan, Canada) agreed on a multi-million dollar aid program to keep India's development plan going over the next several months, and also expressed their intention of trying to meet India's external capital needs, insofar as they were able, for the balance of the Second Plan, ending in March, 1961.

Thus India seems well on the way to filling the capital gap for the Second Five-Year Plan. Ultimate success would appear to depend not so much upon the availability of external financing, as upon the Indian response to the challenge of the enormous task ahead. If the goals of the Plan are substantially realized, the results will be as per Table 5.

India may not achieve all this. But with peace a substantial portion of it will be accomplished and India will thereby have demonstrated the effectiveness of democracy even in an unfavorable Asian setting.

Table 1
Allocations of Resources under
First Five-Year Plan

	Millions of dollars	Per cent
Agriculture (including community develop- ment, irrigation and power)	1,570	38.5
Power	267	6.1
Transport and com- munications	1,044	24.0
Industry and mining	363	8.4
Social services and re- habilitation	892	20.5
Miscellaneous	109	2.5
Total	4,345	100

Table 2

Achievements of the First Five-Year Plan

	Start of First Plan ('50-'51) 1951	End of First Plan ('55-'56) 1956
Foodgrains (million tons)	54	65
Cotton (million bales)	2.9	4.2
Sugarcane (million tons)	5.6	5.8
Jute (million bales)	3.3	4
Irrigation (million acres)	51	67
(a) National Extension Service blocks	None	500
(b) Community Project blocks	None	622
Population served by (a) and (b)	None	80 million
Electricity (Installed capacity, million kw)	2.3	3.4
Iron ore (million tons)	3	4.3
Coal (million tons)	32.3	38
Finished steel (million tons)	1.1	1.3
Aluminum (thousand tons)	3.7	7.5
Cement (million tons) ...	2.7	4.3
Fertilizer (nitrogenous, thousand tons) ..	46.0	380.0
Cotton textiles (million yards) ..	4618.0	6850.0

Table 3

First Five-Year Plan
External Assistance from Western Sources

Source	Assistance	Total
(In millions of dollars—round figures)		
U.S.A.:		
Wheat loan	\$190	
Other loans	83	
Grants	215	
	<u>\$488</u>	
Ford Foundation Grant ..	11	
	<u>\$499</u>	\$499
International Bank Loan ..	25	25
Colombo Plan Grants:		
Australia	22	
Canada	75	
New Zealand	2.5	
United Kingdom	1.0	
	<u>100.5</u>	100.5
Norway Grant .....	.5	.5
Total		<u>\$625.0</u>

Table 4

Allocation of Resources under Second Five-Year Plan

	Millions of dollars	Per cent
Agriculture (including community development, irrigation and power) ..	\$3,110	30.8
Transport and communications	1,869	28.9
Industry and mining	2,909	18.5
Social services and rehabilitation	1,985	19.7
Miscellaneous	208	2.1
Total	\$10,080	100.0

Table 5

India's Second Five-Year Plan
Targets for India's Growth, 1956-1961

Advance of Agriculture and Rural People

All of rural India—325 million villagers—covered by the rural development program.

A 28% rise in agricultural production, with a 25% increase in foodgrains production alone.

21 million more acres put under irrigation.

Every cultivated acre supplied with fertilizers and improved seed.

Continued progress on land reform, and more opportunities for landless labourers.

Rapid Development of Industry, Power, Transport

A 64% increase in (net) industrial production.

Intensive development of basic industries with a 150% increase in capital goods production alone.

Three new steel plants, with over 230% increase in steel production, including doubled private steel production.

Intensive development of village and small scale industries, to increase their production by 30%.

A 100% increase in electric power production; and 58% increase in coal production.

Modernization and improvement of railways to carry at least 35% more freight and 15% more passenger traffic.

Expansion of transport, with 19,000 more miles of surfaced roads, and enlarged ports, harbors and shipping.

Fuller Employment

10 million more jobs and employment opportunities.

An intensified manpower program to prepare and secure trained personnel for development.

Special programs for training and absorbing the educated unemployed.

Table 5—Continued

Higher Living Standards

An 18% rise in income per person, or a rise from \$56 a year (1956) to \$66 (1961).

A 21% increase in consumer goods, to include:

A 16% increase in cloth available per person, or a rise from 16 yds. a year to 18½ yds.

An adequate and more balanced diet, including not only cereals, but more milk, eggs, vegetables and fruits.

Primary school for nearly 8 million (23%) more children.

Nearly 2 million (25%) more homes.

12,500 (11%) more doctors, and 3,000 more rural health clinics.

Afghanistan

Afghanistan is a constitutional monarchy ruled by the Mohammed Zahir Shah, who ascended the throne Nov. 8, 1933. Prime Minister Sardar Mohammed Da'ud, a close relative of the king, visited the United States in June, 1958. Three facts dominate the life of this pastoral, underdeveloped Moslem country and have profoundly affected its domestic and foreign policies: (1) It was long an object of Anglo-Russian imperialist rivalry; British power in the nineteenth century succeeded in maintaining indirect control until after World War I, when full independence was restored to the Afghans. (2) It has 1,250 miles of unprotected border with the U.S.S.R. (3) It is a landlocked mountainous state dependent upon the not always existing good will of its Soviet, Iranian, and Pakistani neighbors for vital import and export communications.

Like most other Asian states, Afghanistan has embarked upon an ambitious program of economic development. In 1956, parliament adopted a Five-Year Plan to improve agriculture and to build some of the power, transport, irrigation, industrial, and social resources needed to upgrade its primitive economy. The plan called for a total investment of \$464 million, one-fourth of which was expected from foreign loans and grants.

More than 90% of the population is engaged in agriculture. In 1957, the per capita value of Afghanistan's gross national product was approximately \$50 a year (in the United States it was \$2,400). The chief products are karakul skins, wool, cotton, nuts and fruits, cereals, and sugar; the first four (and carpets) constitute between 85 and 90% of exports by value. The

More Income for National Development

Increased national production and income will make it possible to save larger amounts for investment in national development, at the same time that living standards rise.

At the end of the Second Plan, 11% of national income, as against about 7% at the end of the First Plan, is expected to be invested.

Cost of Plan

A total of \$9,600 million, or double the amount of the First Plan, is to be spent by the states and the central government to achieve these goals. In addition, another \$4,800 million is expected to be invested over the Second Plan by private enterprise in industry, agriculture and other development.

United States and India have been Afghanistan's chief markets, but more recently the Soviet Union and its satellites have climbed steadily as trading partners.

To a large extent the government, through its Central Bank founded in 1933, controls export earnings, and since 1953 has increasingly extended its participation and control over new industrial and related investments.

Russians to the North

In its efforts to raise living standards mainly by its own bootstraps, Afghanistan has had to face the problem of its great Russian neighbor to the north and attempt to overcome the handicap of transit trade across extremely difficult terrain. There are few roads or usable waterways. The exit route through Iran is least useful and most expensive; the route through the Soviet Union requires a political accommodation; the best route, through Pakistan, has been historically complicated by the irredentist conflict between the two countries over the border region of "Push-tunistan," the home of the Pathans. Twice, in 1950 for three months and in 1955 for five months, Pakistan blocked its neighbor's transit to the sea. Rioting along the border led to acute tension and the mutual recall of diplomatic representatives. In June, 1958, the two countries signed a Transit Agreement stimulated in part by the United States and by the United Nations Geneva Conference on the Law of the Sea in April, 1958. A U. S. loan to Pakistan will enable that country to complete railroad lines to the Afghan border, and the latter to connect with them and thus indirectly to the sea.

These circumstances, plus the need for

external aid and the historic desire to preserve its independence against Russian encroachment, have led Afghanistan to a policy of neutrality or neutralism in international affairs. Kabul signed a treaty of neutrality and non-aggression with the U.S.S.R. in 1931, and a far-reaching trade agreement after the imbroglio with Pakistan in 1950. Since then the Soviet Union has intensified its efforts at penetration by means of aid and trade policies and rigorous support for Afghanistan's neutralist position. A new agreement in December, 1955, following the visit of Khrushchev and Bulganin to Kabul, set the stage for a massive Soviet economic program. Estimates to June, 1958, indicate that Afghanistan has received the equivalent of \$161 million in loans and credits from the U.S.S.R., including \$25 million for military assistance, as against \$59 million of grants and loans received from the United States.

Burma

Burma achieved independence on Jan. 4, 1948, after a century and a quarter of British rule. Unlike India, Pakistan, and Ceylon, the Burmese elected to withdraw from the British Commonwealth, and set their international course as a sovereign republic.

Since then Burma has been continuously ruled by a government representing the Anti-Fascist People's Freedom League (AFPFL), a coalition originally organized as a wartime resistance movement. After the Japanese surrender, this youthful and rather curious coalition of Socialists, Moslems, Christians, and assorted patriots successfully engineered a strategy of peaceful revolution to bring about Burma's independence early in 1948.

Well before independence, the non-communist leadership of the AFPFL discovered that their communist allies were inexorably maneuvering for total power, with the result that the latter were expelled from the AFPFL in November, 1946. The Communists eventually launched an armed insurrection in March, 1948, and together with members of an important ethnic minority, the Karens, have been in open rebellion against the government for the past ten years.

The AFPFL government survived with difficulty in the earlier days of the revolt, but steadily gained strength after it won huge parliamentary majorities in two national elections, 1951 and 1956. At the Third Congress of the AFPFL in January, 1958, Prime Minister U Nu, speaking for a unanimous cabinet, defined the ideology of the AFPFL as democratic, socialist, neu-

tralist, and favorable to all religions, having special regard for the majority religion Buddhism. Marxism, which Nu defined simply as communism, was specifically rejected. By this time Burma, having surmounted the tragedy of rebellion, and also the incursion (1950-1954) of Chinese Nationalist troops who for a time seriously endangered peace between Burma and Communist China, and having demonstrated its ability to bring about meaningful economic progress, appeared at last to be safely on the way toward what the Burmese called *Pyidawtha* (the happy land), or the welfare state.

The ideological unity of the cabinet at the beginning of 1958 concealed deep fissures in personal and organizational relationships among AFPFL leaders, who had been almost continuously at the helm of the nationalist movement since their student days in the 1930's. At the end of April, 1958, this leadership and the party split, publicly and wide.

In September, 1958, the Burmese Army took power in a bloodless coup to prevent Communist elements from seizing control. The army vowed to preserve democracy.

What has perhaps been more significant about Burma during these early, difficult years of independence is the ability of the people to go about their workaday pursuits largely disregarding the conflict at the center. During ten years of rebellion, bridges and water mains have been blown up, trains derailed, and levies made by both the rebels and the government, but the sturdy peasant masses have continued without serious disruption the placid agrarian life that characterizes 85% of Burma's population.

Burma is the largest rice-exporting country in the world, capable in pre-war days of placing more than three million tons on the world market annually. World War II and the insurgency have cut down the volume to a postwar high of two million tons. Income from rice exports, which are controlled by the government, has been earmarked largely to finance Burma's Eight-Year Plan adopted in 1952. With the collapse of the Korean War boom, Burmese ambitions to attain slightly higher than pre-war levels of production and consumption per capita by 1960 had to be sharply curtailed. A more modest version of the Plan was adopted for the 1956-1960 period. By stepping up investment in agriculture and curtailing investment in industry and social services, Burma still hoped to attain creditable advances by 1960.

Shifts to Soviet Aid

From 1950 to 1953, Burma received some \$20 million in grand aid from the United

States. But in the latter year, because of disappointment with the United States over the removal of Chinese Nationalist troops from Burma, Rangoon terminated all grant aid agreements. In 1954 and 1955, mainly as a result of inability to sell their rice surpluses, the Burmese entered into a far-reaching and continuing series of barter arrangements with the Sino-Soviet bloc, which served to dispose of about 25% of annual rice stocks. On the whole, Burma has not been especially happy with these barter arrangements and has increasingly sought to sell rice for cash. Approximately \$42 million worth of Soviet aid, designed to build a technological institute, a modern hotel and a hospital, has also been accepted but will be paid for by the exchange of "gift" rice. In 1957 and again in 1958, new arrangements were made with the United States for loans and the purchase of surplus agricultural products, along with a \$20 million loan from the International Bank for Reconstruction and Development.

After the first two years of independence, during which Burma felt rather neglected by the West, its leaders developed a foreign policy of neutralism or "third-forceism" which they hoped would spare them involvement in the cold war. This did not prevent Burma from supporting the U. N. on the Korean issue and from voting against the Soviet bloc on the Hungarian issue. Basically, Burma is cautious with respect to, if not afraid of, its giant northern neighbor, Communist China, with whom it shares 1,200 miles of common border and to whom it will probably have to yield a portion of that border despite the fact that both nations have agreed to the so-called "five principles of peaceful co-existence."

Cambodia

Cambodia, descendant of the ancient Khmer empire whose magnificent monuments can still be seen amid the ruins of Angkor, was the only part of former French Indo-China not partitioned by the Geneva Agreements (July, 1954) terminating the nine-year Indo-China war. During the prolonged conflict between France and the communist-led Viet Minh, this small, backward Buddhist nation had remained for the most part outside the main theaters of military operations, and relatively free of communist subversive activity. In November, 1953, France made far-reaching concessions to Cambodian demands for freedom; and complete sovereignty was won by the Khmers soon after Geneva.

Political life in Cambodia has been dominated by the volatile, enigmatic person-

ality of ex-king Norodom Sihanouk. Born in 1922, Sihanouk ascended the throne in 1941 and played an outstanding part in the protracted negotiations that ultimately led to independence. In March, 1955, he suddenly abdicated the throne to undertake a more active role in domestic politics. He organized a new party, the Popular Socialist Community, which won 82% of the vote and all national assembly seats in the 1955 elections, and which has controlled the government ever since. (New elections in March, 1958, again gave the Popular Socialist Community a clean sweep of assembly seats.) Despite his unquestioned dominance, Sihanouk has consented to serve only intermittently as prime minister during this period; and political life has been characterized by marked cabinet instability.

Since Geneva, Cambodia has pursued a neutralist course in world politics, and Sihanouk has emerged as one of the most vocal champions of this international orientation. While heavily dependent upon aid from the United States (about \$40 million annually) and to a lesser extent France, Cambodia has also sought and received large scale help from the communist bloc, especially Red China. Relations with the United States deteriorated in 1956, primarily over allegations of American interference in Cambodia's internal affairs; but the pendulum swung sharply in the other direction during 1957 with the exposure of communist subversive activities financed and directed from abroad. As if to right the neutralist balance once more, Phnom Penh suddenly recognized Red China in August, 1958, and shortly thereafter Sihanouk departed on a much publicized visit to Peking. While steering a middle course between the world power blocs, Cambodia has had consistently bad relations with its two largest neighbors, Thailand and South Vietnam, and practically no significant contacts with Laos.

Although the bulk of American aid has gone to support Cambodia's armed forces, the United States has also contributed to long range economic development. The most spectacular project is a highway connecting the capital with Kompong Som, on the Gulf of Siam, where the French are building a deep-water port to free Cambodian commerce from dependence on the Mekong River. Implementation of Cambodia's overall development plans has proceeded slowly.

Ceylon

This small and beautiful tropical island, eighteen miles off the southern tip of India, is a self-governing dominion within the British Commonwealth of Nations.

Elizabeth II is acknowledged as "Queen of Ceylon," but the present government looks to eventual establishment of a republic while retaining membership in the Commonwealth (as India and Pakistan have done). Like many other Asian countries, Ceylon is experiencing a population explosion of almost unparalleled dimensions. Increasing at the rate of 3% annually, the total is expected to reach 18 million by 1980 as against 8.7 million in 1956.

After ten years of independence, Ceylon has yet to find solutions to the pressing political, economic, and social problems created by its diversified history. One of the most serious is the ethnic problem. More than 70% of Ceylon's population are Sinhalese, of whom roughly 90% are Buddhists and the rest Roman Catholics. The latter are descendants of converts to Christianity made largely by the Portuguese, who came to Ceylon in 1505 and were displaced by the Dutch in the middle of the seventeenth century. Another 21% of the population are Tamil-speaking Hindus of South Indian extraction. More than half of them are so-called Ceylon Tamils, the descendants of invaders who first began to enter the island in the eleventh century. They enjoy full legal equality with the majority Sinhalese. The rest, Indian Tamils, were originally brought to Ceylon by the British as laborers on the plantations, or are more recent arrivals. (The British displaced the Dutch during the Napoleonic Wars, and Ceylon was ruled from London until independence on Feb. 4, 1948.) In the main, the Indian Tamils do not wish to be repatriated to India. But they are not especially wanted by the Sinhalese, and only half of them are eligible for citizenship under a special Citizenship Act of 1949 (amended in 1952). They represent a problem under intermittent negotiation with Nehru's government in New Delhi. About 6% of the population are classified as Moors, descendants of Arab traders from the millennial past. Less than 1% are Eurasians and others.

The Sinhalese-Tamil linguistic-religious conflict, always smoldering, erupted into communal rioting in May and June, 1958. Hundreds of lives were lost (estimates range from 150 to 500), with the government striving to achieve a middle-of-the-road position without alienating the Ceylon Tamils but also without granting Tamil demands for a federalist administrative structure, with autonomous states in the predominantly Tamil areas of the north and east. As a result of this unrest, Prime Minister S. W. R. D. Bandaranaike's coalition government (based on the People's United Front) banned two extreme communalist parties, the Federalists (Tamil) and the Sinhalese United Front.

The Bandaranaike government, nomi-

nally a socialist coalition, is also challenged by increasing labor unrest organized chiefly in the port cities of Colombo and Galle by Trotskyites (who are represented in the cabinet by the able Minister of Agriculture and Food, Philip Gunawardena) and by orthodox Communists. A total of 304 strikes representing a loss of 804,493 workdays were registered in 1957 (three hundred thousand higher than the previous 1951 high); and two hundred strikes for a loss of 206,000 workdays were similarly registered in the first quarter of 1958.

The causes of this extensive labor unrest are not entirely clear. Trade unions (and the nationalist-minded Sinhalese) helped to put Bandaranaike and his coalition in power in 1956 on a program of neutralism, moderate democratic socialism and economic reconstruction. In the two years since the elections, this government has approved agreements with the Sino-Soviet bloc for credits, loans and aid totalling almost \$60 million as of March, 1958 (in comparison with \$12.5 million U. S. grant aid). Conceivably the ambition of Trotskyite Gunawardena to become the first elected chief of a Marxist government in Ceylon, comparable to the communist state government in Kerala (India), may be a factor in the current picture. Or else Ceylon's orthodox Communists, thriving on Sino-Soviet aid, may see their chance of duplicating the recent electoral advances of their counterparts in Indonesia. Growing unemployment has undoubtedly had some effect as well. In 1955 there were 71,000 registered unemployed in urban areas, as against 26,000 in 1939; and the trend has continued.

Inherent in the task of any government in Ceylon is the nature of the island's primary producing economy. Ceylon lives off three products: tea, rubber, and coconuts. These crops, from planting to exporting, account for more than 66% of the working population and approximately 95% of Ceylon's exports by value. On their earnings Ceylon must finance its food import requirements (domestic food production equals less than half of minimum needs) as well as all other manufactured and capital goods imports which its economy does not supply. Thus, like other primary producers, Ceylon cannot control its livelihood. In the boom-and-bust cycle that characterizes world trade in raw materials, rubber and coconut prices fluctuate more widely than almost any other products. Tea is less unstable, although price variations have ranged up to 11% in recent years (1948-1956).

To alter its economy through development and diversification, and to provide increased opportunity for its rapidly growing population, Ceylon adopted in 1947 the first of two Six-Year Plans for the cultiva-

tion of new crops and expansion of secondary industry. Faced with a considerable shortfall in execution, Ceylon sought the help of an International Bank mission in 1951 to formulate a more comprehensive Six-Year Investment Program for 1954-1960, calling for a total expenditure of \$531 million. In the first few years of the initial Plan, productivity increased rapidly but thereafter levelled off; and the index of per capita consumption actually declined from 103% in 1951 to 94% in 1956 (1953 = 100%).

It is clear that Ceylon, until recent years one of the most genuinely pro-Western nations among the newly independent countries of Asia, has a hard future ahead both politically and economically. Ceylon first began to shift toward a neutralist international orientation when it could not sell rubber and other exports in Western markets at prices sufficient to pay for necessary imports of food grains. This led to the first (in 1952) of a series of trade agreements with the Sino-Soviet bloc, providing for the exchange of rubber for rice.

Indonesia

During 1958 Indonesia surmounted, temporarily at least, the most serious crisis of its brief history as an independent country. A widespread rebellion reflecting deepseated regional grievances broke out in February, but failed to make much headway against unexpectedly rigorous military countermeasures taken by the national government, although guerrilla warfare continues in some areas. It remained to be seen, however, whether Jakarta would initiate equally effective action to ameliorate the underlying problems of which the rebellion was only a symptom.

Indonesia has still to find itself as a unified nation. Although most of its population is racially Malayan and over 90% profess the Islamic faith, broad ethnic and linguistic divisions reinforce the geographic separatism of the farflung Indonesian archipelago. About two-thirds of the population are packed onto the small island of Java, where the capital is also located, and this has given to the Javanese a dominant voice in the affairs of the young republic. Deep resentments have inevitably arisen, especially over the tendency of Jakarta to drain the outer islands economically for the benefit of the overcrowded Javanese.

Domestic politics have been characterized by a multiplicity of parties and grave cabinet instability, which together have militated against effective government action to deal with Indonesia's most pressing political, economic, and social problems. In the last several years a leading

role has been played by the Nationalist Party (PNI), which enjoys close ties with President Sukarno, and which (until recently) accepted support from and worked closely with the Communists (PKI). The strongly anti-Communist Masjumi, once thought to be the most popular party and which unlike the PNI and PKI depends for much of its support on the outer islands, has steadily lost influence and become increasingly disaffected.

Sukarno's New Policy

After visits to several Communist bloc countries, President Sukarno in the fall of 1956 began to call for "burial" of Indonesia's Western-style political parties, and establishment of a system of "guided democracy." His "conception," as it was gradually defined in succeeding months, consisted of a proposal for an all-party cabinet specifically including Communist participation, and a broadly representative national council to provide policy guidance for the government.

Meanwhile beginning in December, 1956, a succession of military commanders in various areas throughout the archipelago publicly defied Jakarta's authority and set up autonomous regimes, although at the same time proclaiming loyalty to the Indonesian republic.* Sporadic negotiations in the months that followed failed to heal the breach. The economic position of the central government deteriorated sharply as regional authorities conducted foreign trade on their own account and deprived Jakarta of much needed foreign exchange. The situation was greatly aggravated in December, 1957, with the seizure of Dutch properties as a result of the protracted and still unresolved dispute over West New Guinea, which the Dutch refused to turn over to Indonesia at the time of independence and which the latter claimed as an integral part of the republic. Even more alarming to many regional leaders was the steady drift leftward at Jakarta, and the growing strength of the Communists, as evidenced by striking gains in local elections on Java in 1957.

On Feb. 15, 1958, the military dissidents in central Sumatra proclaimed a provisional government at Padang headed by Sjafruddin Prawiranegara, former head of the Central Bank. Designed primarily as an extreme measure to bring pressure on the central government, the move won little overt support among other autonomist regimes elsewhere in the archipelago,

* Indonesia has been plagued by rebellion since independence. In addition to the widespread Darul Islam movement, serious outbreaks had occurred in Acheh, Celebes, the Moluccas, and elsewhere even before the military coups discussed here.

except in Celebes, or among the general population. Contrary to expectations Jakarta reacted swiftly and with surprising effectiveness against the dissidents. Within a matter of weeks the national army had occupied Padang and dispersed rebel forces in central Sumatra.

Despite collapse of its military resistance, the dissident movement has had some effect in moderating the policies of the central government. Jakarta has promised a fairer deal for the outer regions in the future, and has taken several significant steps to curb the strength and influence of the Communists. In this respect the lead seems to have come from General Abdul Haris Nasution, staunchly anti-Communist army chief of staff who won great prestige in defeating the rebel movement. There have been signs also that the Nationalist party has come to realize the folly of its close ties with the PKI. Nationwide elections are scheduled for 1959, but may be postponed to forestall further gains by the Communists.

Little Economic Progress

Indonesia shares with its Asian neighbors a burning ambition for economic development, diversification, and improvement of its low standards of living. Little if any progress has been made in this field since independence, which has been a principal motivating factor in the drive for regional autonomy.

Although the United States played a creditable role in Indonesia's struggle for independence, relations between the two countries have never been cordial. This is largely to be explained by Indonesia's resolutely neutralist orientation in world affairs, and our own refusal to support Indonesia in the West New Guinea dispute. U. S. loans and grants to the island republic have been relatively modest over the years, amounting to less than \$300 million in all. The Communist bloc has recently begun to extend assistance, which already totals well over \$100 million. United States policy not to aid the rebels, despite their anti-Communist complexion, together with the decision to sell light arms to Jakarta after repeated refusals had driven Indonesian authorities to go shopping among Communist-bloc countries, have laid the basis for more friendly ties.

Laos

The remote, landbound Buddhist kingdom of Laos is like a dagger pointed at the heart of Southeast Asia. A prime target of communist ambition (Laos shares a

common border with mainland China and North Vietnam), its eventual fate will profoundly affect the destinies of four other neighbors—South Vietnam, Cambodia, Thailand, and Burma. In the few years since independence, the Communists have already firmly established themselves in the political life of the country.

As a result of the July, 1954, Geneva Agreements, the communist-dominated Pathet Lao movement was left in control of the two northeastern provinces of Sam Neua and Phong Saly. After three more years of desultory warfare and intermittent negotiation, a compromise was finally patched up in October, 1957, providing for reassertion of national authority over the dissident provinces and integration of part of the rebel forces into the regular army. In return, the Pathet Lao gained two places in the cabinet (including one for the communist leader, renegade Prince Souphanouvong, a half-brother of the incumbent prime minister, Prince Souvanna Phouma; both are related to aged King Sisavong Vong, which lends an ironic twist to the bitter struggle for political power now going on), and the promise of new elections for twenty supplementary seats in parliament. Duly held in May, 1958, the results were a smashing communist victory, with the Pathet Lao (now renamed Neo Lao Hak Xat, or Patriotic Front) and their allies winning thirteen contests. The outcome reflected the superior organization and indefatigable energy of the Communists as contrasted with the non-Communist parties.

On July 22, 1958 communist representatives were excluded from his cabinet. The change seemed to presage greater vigilance against the internal communist threat. In the international field, Laos remains overtly neutral although resolutely eschewing formal political relations or the acceptance of economic aid from Communist countries.

Sparsely populated and underdeveloped, with no railroads and few passable roads, Laos has just begun to modernize its backward economy. Progress is bound to be slow. At present the government is wholly dependent on U. S. aid, which totals about \$45 million annually and is used primarily to support the army and police. Whatever the truth of oft-repeated charges of inept and unimaginative American administration, and widespread corruption on the part of Laotian officials, the massive aid program does not yet appear to have greatly speeded up the process of economic growth. The vast majority of the population still lives at subsistence levels. Improvement of their lot constitutes perhaps an even greater challenge than the Communists.

Malaya and Singapore

The Federation of Malaya has been independent for less than two years. Before World War II there was little demand for self-government in this "almost ideal colonial territory." Its diverse peoples seemed content to cultivate their private interests under the beneficent tranquillity of British rule. But after the war nationalist sentiment developed rapidly; and the British, in accordance with established policy throughout their farflung empire, resigned themselves with good grace to the inevitable. When the formal transfer of governmental authority eventually took place on August 31, 1957, Malaya elected to stay within the British Commonwealth and to retain close defense ties with the United Kingdom.

Malaya faces a unique racial problem, which lies beneath all political issues. As a result of indiscriminate immigration in the past, which was in part spontaneous and in part organized by the British to provide labor for their tin mines and rubber plantations, the Malays have become a minority in their own land. Today nearly 40% of the population are Chinese, while 12% are Indians and others. For the most part political parties in the Federation have been organized along communal lines. To be sure, the successful movement for independence was led by a coalition of the three principal communal groupings—the United Malays National Organization, Malayan Chinese Association, and Malayan Indian Congress; and the Alliance (as it is called) still controls the Federation government. It is headed by a Malay, Prince Abdul Rahman, who is a scion of the royal house of Kedah, one of the constituent states of the Federation, and also prime minister of the incumbent government.

But little progress has yet been made toward integrating the several races into a united Malayan nation. The Malays, easygoing and wedded to their traditional, agrarian way of life, fear and resent the more fecund Chinese, who have long since won a dominant position in the commercial life of the country. The ambitious, hardworking Chinese, in turn, are disgruntled over the favored political position which the Malays enjoy under the existing governmental set-up.

Rubber

While the Federation is relatively well off in comparison with most of its Asian neighbors, the economic situation also holds many incalculable factors. Malaya produces only a third of its food require-

ments, and its prosperity is dependent upon the fluctuating world market for the country's two major exports, rubber and tin. Thus far relatively little progress has been made toward diversification and industrialization of the economy.

In one respect there has been dramatic improvement during the last few years. Since 1948 Malaya has been torn by a Communist insurrection manned and supported almost entirely by elements from the Chinese community. While the rebellion has proved impossible to suppress completely, it has now been reduced to little more than nuisance proportions, although still demanding large scale military effort (and expense) on the part of the Federation government. This whole tragic experience has not, however, led Malaya openly to take sides in the cold war. Despite a clear pro-Western bias and continuing close ties with the British, the government has declined to join the Southeast Asian Treaty Organization (SEATO) and in other respects has pursued a generally neutralist course.

The island of Singapore was excluded from the territory of the Federation, and continues as a British colony following its own path to self-government and (presumably) eventual independence. Separated from the mainland by only the narrowest strip of water, this great commercial entrepot is the natural channel for Malaya's substantial foreign trade. But considerations of racial politics made union impossible from the Malayan point of view, at least for the foreseeable future. More than three fourths of Singapore's rapidly growing population are Chinese, and if added to the Federation would make them the majority people. In addition, Federation leaders feared the sharp leftist trend within Singapore. Communist infiltration in the colony, especially in schools and trade unions, has reached such proportions that Singapore may well freely elect a Communist-front government in the next elections, scheduled for 1959.

Nepal

Nepal, hitherto one of the most remote and backward countries on earth, has in recent years begun to progress towards political modernity. In considerable measure this has been due to the farsighted leadership of its reigning sovereign, King Mahendra. A constitution is now in preparation, and the nation's first general elections have been tentatively scheduled for February, 1959.

Even after it becomes a constitutional monarchy, Nepal's independence will con-

tinue to be profoundly affected by its special relationship with India. To understand this, one must realize the critical geographical position of this landlocked mountainous state as a buffer between Communist Chinese-dominated Tibet and India. Nehru, although yielding without any measurable opposition to Peking's occupation of Tibet, has stated that India's true borders are the Himalaya Mountains on the north of Nepal, and that India was "not going to tolerate any person coming over that barrier."

Nepal's relations with India are to a large extent governed by treaties signed in July, 1950 and June, 1957. They give to India, almost in the same terms, the rights and privileges which Britain exercised in Nepal as a result of a 1923 Treaty which presumably gave "independence" to that country. (Britain in July, 1958, renewed for ten years an agreement with Nepal permitting the recruitment of Nepalese citizens, the Gurkhas, for British battalions stationed in Asia.)

The Nepalese do not especially like their dependence on India, but there is no other access (except through China) to the outside world. India has contributed about 100 million rupees (1 rupee = 21 cents) to Nepal's plans for economic development, which by 1960 call for a total investment of 330 million rupees. However, Communist China, actively maneuvering for position in Nepal, signed in October, 1956, an aid agreement providing 60 million rupees towards the same plans. The United States has also instituted a modest technical assistance program in Nepal amounting in 1958 to \$1.8 million.

Nepal invited the Asian Socialist Conference to hold a Bureau meeting in Khatmandu, on March 26-29, 1958, which is perhaps a further indication that Nepal belongs to the non-communist world south of the Himalayas. Indian, Israeli, Japanese, Indonesian, and Burmese Socialists participated.

Pakistan

The Islamic Republic of Pakistan, independent since Aug. 15, 1947, although still a member of the British Commonwealth of Nations, has yet to conduct its first national elections, which were scheduled for Feb., 1959. The President and chief of the armed forces suspended constitutional government in Oct., 1958, and governed without the Cabinet. Elections were postponed. This fact is symptomatic of Pakistan's turbulent political record during the past decade. The nation is divided into two unequal parts separated by the 1,000 mile expanse of India: overcrowded East

Pakistan with more than half the population and only 15% of the total land area, and West Pakistan which has dominated the political life of the country since independence. (Karachi, the capital, is in West Pakistan.) Each province has a different official language, Bengali in the East and Urdu in the West.

Ever since the death of its founder, Mohammed Ali Jinnah, in 1948 and the assassination of Prime Minister Liaquat Ali Khan in 1951, Pakistan has sought vainly to find political balance. Frequent changes of cabinets, essentially a reshuffling of party leaders in the French manner, have contributed to instability.

Unlike most other ex-colonial nations which achieved independence at the end of World War II, Pakistan had no prior existence except as fairly well defined areas, predominantly Moslem in religion and culture, within the great Indian subcontinent. Its creation grew out of intense conflict between two great leaders, each now regarded as the father of his country, Jinnah of Pakistan and Mahatma Gandhi of India. From the time of the British declaration of June 3, 1947, which led to independence the following August 15 for both India and Pakistan and the partition of the subcontinent between them, the Pakistanis had just seventy-two days to organize a government and to work out an equitable division of assets and debts left behind when the British quit India.

Pakistan had to be created as a state with all the enormous and complicated machinery required by an impoverished country approximately 90% rural, less than 15% literate, with low levels of life expectancy, productivity, and a per capita income of less than \$50 a year. Relations with India were disturbed not only by the necessary division of goods and services, but also by the savage communal riots between Moslems and Hindus which followed partition and the vast transfers of population resulting from them. In the first five months after independence, it is estimated, 4.6 million Moslem refugees escaped to Pakistan from India and a proportionate number of Hindus fled to India.

Shortly after partition Pakistan became embroiled in a bitter conflict with India over the fate of Kashmir, a predominantly Moslem province ruled by a Hindu prince who chose to adhere to India. The Kashmir question, marked by an armed truce that has physically divided this strategic and beautiful area, has eluded solution within and outside the councils of the United Nations ever since the dispute was placed before that body in 1947. Relations with Afghanistan also deteriorated rapidly after independence over the problem of the

Pathans, a people who live on both sides of their common border and who appear to desire an independent Pushtunistan which would then presumably accede to Afghanistan.

In the midst of these problems, the Pakistanis have turned to upgrading their primary product economy. Food consumption among Pakistan's rapidly rising population is under 2,000 calories a day, some 300 calories below the minimum standard suggested by the U. N. Food and Agriculture Organization for the peoples of Asia. If Pakistan is to avoid starvation it must import nearly 1 million tons of food grains a year. Agriculture is the main economic problem. It provides a livelihood for over 85% of the population, produces 60% of the national income, and earns 90% of the country's foreign exchange (mainly through exporting jute and cotton; 75% of the world's jute supply comes from East Pakistan). In the arid West insufficient rainfall, and in the monsoon-drenched East recurring floods and other disasters continuously place Pakistan's agricultural production in jeopardy. While acreage under cultivation has grown during the first decade of independence, productivity per acre has declined. Irrigation, a beginning in the use of fertilizers, and better crop rotation have not yet redressed the balance. Gross food production in 1955-1956, although amounting with other agricultural production to more than the pre-war base level (1936-38), was still 9% below the pre-war per capita level.

Development Plans

To solve this recurring food crisis, to increase exports so as to earn more foreign exchange, and to set its economic house in some kind of order, Pakistan has embarked upon a program of planned economic development. In 1948, Karachi established a Development Board which by 1950 had formulated a Six-Year Development Plan. The boom and decline brought on by the Korean War required extensive revisions in this Plan. A new, somewhat more sophisticated Planning Board was set up in 1953, assisted by an American economic team financed by the Ford Foundation. Out of these efforts have come the First Five-Year Plan, 1955-1960. The essential characteristics of Pakistan's planning—as with all other countries of Asia whatever their political complexion—is the recognition of government responsibility for planning, investment and, where necessary, operations; and the decision to proceed as rapidly as possible with industrialization. Industry is regarded as the essential ingredient for transforming a rural, stagnant economy into a viable, modern one. Al-

though the private sectors of indigenous industry and agriculture are encouraged, the government recognizes that it alone has primary responsibility and capacity for acquiring the necessary capital and importing or training the necessary managerial and entrepreneurial skills.

The Five-Year Plan has four objectives: to raise national income and employment through industry, agriculture and community development; to improve the balance of payments through raising exports and managing imports; to extend social services; and to pay special attention to some of Pakistan's more depressed areas, especially East Pakistan. It contemplates an investment of 8 billion rupees in the public sector and expects a 3.6 billion related investment in the private sector (1 rupee = 21 cents). If all targets are realized, and allowing for a population growth figure of about 1.5% per annum, Pakistan's planners expect that per capita income will rise 12% by 1960. But to do this Pakistan will require external public and private financing for 4.2 billion rupees of the total 11.6 billion required. These expenditures do not include the considerable sums required for Pakistan's defense program.

External Aid Helpful

The chief suppliers of external capital have been the United States and the International Bank for Reconstruction and Development. To a lesser extent the U. N., the Colombo Plan, and private investors have helped. The 4.2 billion rupees has a dollar equivalent of a little less than \$1 billion. Toward this sum the International Bank through the spring of 1958 extended \$126,450,000 in nine loans. Beginning in February, 1951, the United States advanced a variety of grants and loans amounting to approximately \$400 million (excluding direct military aid) by June 30, 1958. However, a considerable amount of additional food surplus loans and grants were for disaster relief, and did not enter directly into economic development. U. N. technical assistance totaled approximately \$5.5 million between 1950 and 1956.

The combination of planning and external aid have had a measurable effect, particularly in the industrial sector. Manufacturing has accounted for a steadily rising share of national income since partition; in some consumer articles Pakistan has achieved self-sufficiency and even an export potential. In 1953 the government set up the Pakistan Industrial Development Corporation; by 1957 it had completed twenty-six new industrial projects (jute, paper, sugar, cement, fertilizer) and had nineteen others under way.

Pakistan will probably not complete its Five-Year Plan by 1960. Internal political instability, external difficulties with India and Afghanistan necessitating in Pakistan's view large expenditures on defense (with U. S. military aid), plus the inevitable gap between aspiration and performance, have contributed to a short fall. Nevertheless considerable improvement has already taken place, sufficiently so that with domestic tranquility and the acquired expertise of the First Five-Year Plan, Pakistan can look forward to a more successful Second Plan in the future.

Pakistan, like Thailand and the Philippines, has sought security in the U. N. and through membership in various collective security arrangements. Pakistan signed the Southeast Asia Collective Defense Treaty at Manila in September, 1954; and a year later Pakistan acceded to the Baghdad Pact. Pakistan has also associated itself with the Afro-Asian bloc in the U. N., was a sponsor of the twenty-nine-nation Bandung Conference in April, 1955, together with the four other Colombo powers (India, Ceylon, Burma, and Indonesia), and participates regularly in various activities arising from membership in the British Commonwealth of Nations.

Thailand

Since 1932, when revolution swept away the absolute monarchy and relegated the king to a figurehead role, Thailand has been plagued by political instability. In this period the country has had six constitutions, eight general elections, six successful coups and several more that failed. The most recent coup, in September, 1957, toppled from power Field Marshal Pibul Songgram, who had dominated Thai politics for most of the preceding twenty-five years. His place was taken by Field Marshal Sarit Thanarat, army commander in chief, although unlike his predecessor Sarit did not formalize his position by assuming the prime ministership.

Far from installing democracy, the constitutional revolution of 1932 simply transferred power from the royal family and old aristocracy into the hands of a new middle class oligarchy of young officers and civilian intellectuals. The heart of the political process ever since has been the struggle for power among individuals and factions within this group. Substantive issues have played a lesser part. Three main lines of division can be discerned: the conservatives, led by Khuang Apaiwong, with close ties to the old order; the militarists, headed by Sarit (formerly Pibul); and the civilian liberal leftists, whose hero is Pridi Phanomyong, now in exile in Communist China. The September,

1957, coup represented a fight among rival cliques within the militarist faction, which has substantially monopolized the scene for more than a decade.

Nevertheless, significant progress has been made in the establishment of democratic institutions. For more than a quarter century Thailand has had a parliament in which elected representatives have discussed public questions and often subjected government policy to searching criticism, even if the cabinet has not yet been brought under parliamentary control. Civil liberties have never been wholly suppressed; Bangkok in particular has a lively and often outspoken press.

Over the years Thailand's leaders have shown remarkable skill in the conduct of foreign affairs. Throughout the colonial period they managed to preserve their country's independence (although with some territorial losses) despite its exposed position between the rival imperialist spheres of France and Great Britain. In part through force of circumstances, Thailand sided with the Axis during World War II. But even this blunder, which incidentally for the most part safeguarded Thai territory from the devastation of modern war, has been successfully recouped without permanent damage. Since 1945, Thailand has pursued a consistently pro-Western course. It is, with Pakistan and the Philippines, one of the three Asian members of the Southeast Asia Treaty Organization (SEATO). Nevertheless, Bangkok has inevitably grown apprehensive over its proximity to Red China (there is, in addition, a minority of some 3 million Chinese in Thailand), and in the last few years has shown unmistakable signs of its readiness to seek an accommodation with Peiping if ever this should become advisable.

United States grants and credits to Thailand in the postwar period reach approximately \$125 million. No aid has thus far been received from the Communist bloc. The Thai have gradually been modernizing their economy in recent years, but its overwhelmingly agrarian character has not yet been substantially modified. Rice accounts for about 90% of all cultivated land, and is the most important export commodity. Other significant exports are rubber, tin, and teak.

Vietnam

Largest and most populous of the former Associated States of French Indo-China, Vietnam lies at the southern extremity of the Sinitic world. West of the Annamite mountains and throughout the rest of Southeast Asia, Indian civilization has

exercised predominant influence. Despite its great cultural indebtedness to China, a main theme of Vietnamese history has always been the recurrent struggle to win and maintain freedom against encroachment by the northern colossus.

In the last few years that struggle has entered a climactic phase. Pursuant to the Geneva Agreements of July, 1954, that ended the savage Indo-China war, Vietnam was partitioned along the seventeenth parallel into two almost equal parts. The slightly larger north was left to the Communist Viet Minh, victors over the French in the civil war just ended, but themselves obedient puppets of Moscow and especially Peiping. In the south, an untried nationalist regime at Saigon headed by the respected Ngo Dinh Diem assumed power, although few expected it to survive for long. Near chaos reigned in the south; and if renewed aggression or successful subversion did not quickly reunite the country under the communist banner, nationwide elections scheduled at Geneva for July, 1956, were bound to lead to the same end.

Or so it seemed. In fact, developments in the four years since Geneva have followed a wholly different course. To the astonishment of most observers, South Vietnam has survived and even flourished. Three main factors account for this: the astute, courageous leadership of Ngo Dinh Diem; the massive political and material support of the United States, including the protection afforded by the Manila Pact (September, 1954); and the communist decision, in line with the dictates of international strategy, to refrain from overt aggression or concerted efforts at subversion in South Vietnam.

Within two years Diem had gained control over the army and crushed the dissident "sects" (Binh Xuyen, Cao Dai, Hoa Hao) that disputed his authority in the south; contained and reduced to manageable proportions the threat of the communist underground; and thereby established conditions of genuine security throughout most of his territory. He also eliminated the last vestiges of French control, and successfully launched South Vietnam on its own international course (militantly anti-communist with no nonsense about "neutralism") in both the political and economic fields, so that today his regime has relations with over forty foreign governments.

The reception of more than 850,000 refugees from the north was handled with remarkable smoothness, and important steps taken to integrate this unexpected influx of population into the life and economy of the south (with American aid footing the bill). A land reform program was instituted, and other important eco-

nomie and social measures set in train. In the constitutional field, a referendum was held in October, 1955, deposing the absentee emperor, Bao Dai, and establishing a republic with Diem as president; and elections conducted the following March for a constituent assembly which produced a presidential-type constitution promulgated on Oct. 26, 1956. Meanwhile, the machinery of administration was gradually overhauled. Finally Diem successfully flouted the provisions of the Geneva Agreements calling for reunification elections in July, 1956, on the ground that the French and not his government had acceded to them, and thereby effectively removed lingering fears of an imminent communist takeover.

Economic Gains

Developments since 1956 have necessarily been less spectacular, although significant progress has been recorded in the economic field. Land reclamation has proceeded apace, and there have been important advances in the "infrastructure" (transportation, communications, technical training, etc.) of South Vietnam's underdeveloped economy. A modest beginning has also been made in industrialization, despite repeated charges of government mismanagement in the economic field and an unwillingness to take hard decisions. American aid continues at high levels. Since 1954, aid has averaged well over \$200 million annually, not including military hard goods. The bulk of this assistance has gone to support the armed forces and police, whose capabilities have been increasing steadily, although still not comparable to the Viet Minh. On the negative side of the ledger, there has been little relaxation of the authoritarianism and repressiveness that have characterized Diem's government from the beginning. Most civil liberties remain rigidly circumscribed, and functioning democracy remains more an ideal than a reality.

In the communist north, a ruthless dictatorship has been imposed on the land. Its severity has led to at least one fairly widespread peasant revolt in the fall of 1956, but otherwise Viet Minh rule has not been seriously jeopardized. According to creditable reports, the Viet Minh army has been doubled to about 350,000 effectives in violation of the Geneva Agreements, and armed with massive support from the communist bloc. The Hanoi regime, still headed by the veteran communist revolutionary, Ho Chi Minh, has also received large scale economic aid from the bloc, said to total nearly \$100 million, and has been making rapid progress in the industrialization of the north. Favored by possession of most of the

country's mineral wealth and almost all of its modest pre-Geneva industrial plant, and fully prepared to use violence when necessary, the north appears to have achieved greater success in this respect than Diem's government. The noteworthy

political, economic, and social gains thus far registered by the more liberal south must therefore be judged against the perspective of much more substantial military and industrial growth in the communist half of this tragic, divided country.

AFRICA

By

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THE FIRES OF NATIONALISM have swept the continent of Africa since 1945 and in their wake have appeared new independent states with African leaders. Parliaments based on European models have emerged from what was regarded until recently as a continent of savage men and wild animals. Within a generation all the former European colonies will have been transformed into self-governing nations. Already the new lands of Africa are beginning to take their places on the stage of world politics.

But the change from colony to independence has not been accomplished without deep disturbances in African society. The creation of a new democracy is a complex task. In the period of colonial rule, only a tiny fraction of the population was ever permitted a voice in government and popular representation was all but unknown. Almost overnight, Africans are being called upon to vote, to decide issues of national policy, and to form political parties. And, to make independence a reality, the new countries are required to create a bureaucracy to handle the business of government, although there may exist only a few hundred individuals with the necessary education and experience to assume such responsibilities.

Independence has usually been preceded by a more or less lengthy period of nationalist agitation against the colonial rulers. The political unrest caused by the crusade to unite the people in the drive toward independence cannot simply be extinguished at the dawn of independence morning; as a result the new governments, as in the case of Ghana since 1957, have occasionally had to resort to undemocratic measures to maintain public order. Frequently also, the illusion of national unity created by the demand for independence covers old divisions within the country. The enthusiasm for nationalist slogans evaporates when they are no longer applicable and what may previously have looked

like a nation united behind its leaders may dissolve into antagonistic tribal groups.

No Natural Units

None of the new African countries are "natural" units as they stand today. All were created by the race for colonies among the European powers in the late nineteenth century. Their present boundaries often cut through areas in which the same languages are spoken; one tribe may be divided among three independent countries. Within countries, neighboring groups are divided by language, custom, or traditional hostility.

The emerging states of Africa as well as the territories that are still colonies share with other underdeveloped areas of the world problems of economic and social development which will require aid from the Western nations, and particularly America, for many years to come. All African governments are struggling against low standards of living and lack of education. In some areas illiteracy runs as high as 90%. Everywhere only a small fraction of the children are able to attend elementary schools and a mere handful are able to go on to secondary school and university. Facilities for technical and professional training are being created as rapidly as the governments can afford them, but their efforts are slowed by a lack of trained teachers.

The economic future of the independent African states depends largely on the availability of foreign capital and on technical assistance. The new African governments have little prospect of finding capital at home for extensive development.

A major difficulty facing the governments of the African states is that to make their resources attractive to foreign private investors, a heavy expenditure of public capital will be necessary to build roads, bridges, ports, electric power supplies, and other public utilities. For

these, loans from foreign governments are necessary. Although the independent African governments can depend to some extent on the former colonial powers, it is to be expected that increasing help will be asked from the American Foreign Aid Program.

Despite their serious internal problems, the new African states are rapidly beginning to play an active role in the Afro-Asian Bloc in the United Nations. In April, 1958, the first Conference of the Independent States of Africa, attended by representatives of eight governments, was convened in Accra under the chairmanship of Kwame Nkrumah, Prime Minister of Ghana. Representing over 60,000,000 people, the Conferees passed resolutions concerning economic and cultural cooperation in Africa and supported the struggle of the Algerians for independence.

The Accra conference marked the beginning of a new step in world politics when, for the first time, Africans were making their voices heard through their own governments, not through the colonial offices of Europe.

The United States has economic, political, and cultural interest in Africa. The ancestors of one out of eight Americans came from Negro Africa; the interest of the American Negro community in African problems is reflected in the efforts of Negro groups in America to assist in African education. Although Africa does not loom large in the overall figures of American trade, increasingly the United States will become dependent on the raw material resources which Africa has to offer.

The countries of Africa need outside help to industrialize their economies and to raise the living standards for the mass of their people. Their leaders will accept this help from whatever source it is offered, but they have made clear that in doing so they are not prepared to compromise their hard-won independence. Hitherto, they have looked to America for financial aid and technical assistance, but if the American response is to be adequate to meet African requirements, it will have to be on a much wider scale than it has up to the present. The support and friendship of the African nations will continue to be of constantly greater importance to America; they can only be earned by sympathetic understanding of the problems confronting these new democracies.

Ethiopia

The ancient empire of Ethiopia attained its independence long before the creation of any of the modern states of Africa. Present-day Ethiopia became a sov-

ereign state as an outgrowth of the consolidation of a number of former kingdoms which owed allegiance to the Ethiopian emperor, the King of Kings. Most of these old kingdoms (Shoa, Tigri, Gojjam, and others) are today provinces of Ethiopia.

The 350,000 square miles of Ethiopia range from arid desert, which can support only those few nomads who know the location of the wells, to lush mountain farm and grazing land. In the mountainous heart of the country the abundant rainfall is drained off through deep gorges which form parts of the Nile water system. The exact population of the country is unknown; official estimates place it at 15,000,000, but several authorities believe it to be no more than 8,000,000 to 10,000,000.

The Ethiopian kingdom is one of the few African countries which have a recorded history. Men have migrated here from Asia Minor for well over two thousand years. The chief race today is the Amhara, numbering 2,000,000. They were converted to Christianity by the Egyptian Coptic Christians, and today they remain extremely proud of the fact that they were Christians long before many people in Europe. Along with the Amharic people, there have come to Ethiopia over the centuries Greeks, Jews, Arabs, and Indians, so that today the kingdom is a mixture of peoples speaking over seventy different languages.

The fact that the ruling Amharic group have had to retain control over the country in the face of frequent tribal resistance accounts in part for some of the authoritarian aspects of Ethiopian government today. The kingdom remains essentially feudal in nature. At the top is the Emperor, Haile Selassie I (born 1891, crowned Emperor 1930), who traces his ancestry to the Queen of Sheba and to Menelek, King Solomon's first son. He retains virtually full governmental powers in his own hands, appointing the ministers who assist him and the governors who rule the outlying provinces.

Addis Ababa, the capital, fell on May 5, 1936, and Ethiopia became part of Italian East Africa, with Italian Somaliland and Eritrea, until British and Ethiopian troops reconquered the country in 1941.

Since the end of Italian occupation, Ethiopians have been in much greater contact with the world than ever before. The Italian occupation forces built several motor roads between 1936 and 1941, uniting the capital with the provincial headquarters; an efficient air service connects Addis Ababa with Khartoum and other centers. The chief rail link to the outside is the line from the capital to Djibouti, on the coast of French Somaliland. The

isolation for many centuries of central Ethiopia in its encircling belt of mountains meant that economic development was greatly retarded, compared to the Sudan and to Egypt.

Since World War II, the Emperor has made strong efforts to modernize his country, but he has been hampered by lack of educated men for the civil service and for technical posts as well as by his obligations to the feudal hierarchy he heads. Technical assistance has flowed into Ethiopia from several sources; the World Bank has granted development loans, United Nations Technical Missions have endeavored to modernize the bureaucracy, and Point Four aid has been given in agricultural and mechanical training. Foreign advisers—Belgian, Swiss, French, and even Russian—have been called upon by the Emperor to assist in developing the public health service and other departments of government.

Since September, 1952, the former Italian colony of Eritrea has been federated with Ethiopia. This gives Ethiopia an outlet to the sea, through the port of Massawa. Ethiopian trade has increased as a result, and exploration for mineral resources has been speeded up.

Although there has been active Russian propaganda in Ethiopia, the Emperor's government has maintained an independent but continuously pro-Western stand. American military and communications installations have been erected in the country. Because the Muslim section of the population is in a minority, it is unlikely that there will be any widespread inroads of Egyptian influence in the near future.

Federation of Rhodesia and Nyasaland

The Federation, stretching for more than 1,000 miles south from the borders of Tanganyika to the northern rim of the Union of South Africa, is composed of three units, Northern and Southern Rhodesia and Nyasaland. In structure the Federation is unusual in that Southern Rhodesia is a self-governing Colony, while Nyasaland and Northern Rhodesia are Protectorates, controlled by the British Colonial Office. Southern Rhodesia is governed by an elected legislative assembly of thirty members, headed by a prime minister. The two Protectorates have legislatures in which European members, elected or nominated by the Governors, predominate.

The Federal government, which came into existence under the Constitution establishing the Federation in 1953, has an Assembly of thirty-five members, seven-

teen from Southern Rhodesia, eleven from Northern Rhodesia and seven from Nyasaland. Twenty-six members are elected Europeans, six are elected Africans, and three Europeans are specially chosen to represent African interests. The powers of government are shared by the Federal and territorial governments, as in the American system.

Since Southern Rhodesia has an elected Assembly, only in this territory has there been any development of political parties. The second election since Federation was fought on June 5, 1958. Political activity within the Federation centers about the racial question. In April the United Federal Party, which had been in power since 1953, split and rejected its leader—the Prime Minister of Southern Rhodesia, Mr. Garfield Todd.

Chosen as the new leader was Sir Edgar Whitehead, who returned from his diplomatic post in the United States to head the party. The United Federal Party espouses basically middle-of-the-road views on the political advancement of the African. Opposed to these views is the Dominion Party, led by Raymond O. Stockil, which seeks to retain full white domination. Mr. Todd and some of his followers quit the United Federal Party to form the United Rhodesia Party, which vigorously contested the elections but failed to win a single seat. The voters apparently favored the moderate views of the United Federal Party, returning it to power with seventeen seats. The Dominion Party provides, however, a substantial opposition with thirteen seats, as compared to four in the previous legislature.

The immediate issue in 1958 was concerned with the number of Africans who should be allowed to vote. Todd's government in 1957 enacted a law opening the way for additional African voters by lowering property qualifications. Hitherto, the vote had been limited to literate adult citizens, who had a minimum income of \$840 or who owned property valued at \$1400—qualifications few Africans could meet. The effect of Todd's legislation was to add 11,000 African voters to the few thousand already on the rolls. Since few of these had registered to vote in the 1958 elections they could not have had any effect on the outcome of the election. However, the Dominion Party bitterly opposed the measure and promised to repeal it if elected, presumably fearing further encroachment on the European predominance. The parties are separated on the question of the rate of African advancement, but not on questions of economic philosophy. All three major parties favor free enterprise and a minimum of government control over the economy.

A Forty-Year Effort

The effort to create a Federation out of the three territories of central Africa goes back more than forty years. The two Rhodesias were early linked together through their connection to the British South Africa Company, chartered by the Crown. Administration of the two territories was under control of the company until 1923, when Southern Rhodesia received self-government; Northern Rhodesia became a Protectorate in the following year. A colonial administration had been organized in Nyasaland as early as 1907. From 1915 on there were attempts made by European groups to bring about union of the Rhodesias but the whites of Northern Rhodesia were reluctant to accept control by the larger European community of Southern Rhodesia. A Royal Commission (the Hilton Young Commission) reported favorably in 1929 on the amalgamation of Northern and Southern Rhodesia but in 1931 the British government rejected a demand by the Europeans of both territories for amalgamation, indicating that it was thought such a step was impracticable at that time for economic reasons.

The political parties of Southern Rhodesia and the elected (European) members of the Northern Rhodesian Legislative Council continued to agitate for amalgamation until, in 1937, a new Royal Commission again disapproved of the plan, this time on the ground that the policies of the two territories toward their African population were entirely different. However, in 1945, to promote closer economic union, a Central African Council was established consisting of the three governors and members of the three legislatures. Common government services were encouraged but the Council had little influence since it had no way of appealing to public opinion to support its recommendations.

Europeans Supplied Impetus

It is significant that the continuing impetus for Federation came entirely from the European community. The Northern Rhodesian whites, at first hesitant, later joined wholeheartedly because they became convinced that the Colonial Office favored African not European interest. African opinion was, from the outset, opposed to Federation, or any form of closer union between the Rhodesias because it was felt that such a union would mean permanent political control by the European minority.

In 1950, the United Kingdom government decided upon a new examination of

the whole Federation question. A long series of conferences and discussions was held in London and in the Territories, during which the Labor members of the British parliament violently opposed Federation, because they felt that insufficient attention was being paid to African interests. Representatives of African organizations protested the whole plan bitterly and refused to take part in any of the discussions. Despite the African reaction, however, the question of Federation was finally put to a referendum in Southern Rhodesia and approved by the legislatures of the three territories. Only a small fraction of the total population voted on the question (Africans, of course, had no vote) and, even under these circumstances, the proposal did not receive a large majority of votes cast.

There is little doubt that the ultimate success of the Federation will depend on the direction taken by its racial policies. In order to prevent the segregationist views already evident in Southern Rhodesia's policies from spreading, the Federal Constitution provided that control over native affairs should be vested in the territories, not in the Federal government. In those fields where Federal powers apply, African interests are guarded by the African Affairs Board. Originally proposed as a body independent of the legislature, the Board is now a standing committee of the Legislature, and is composed of three Europeans and three Africans. Its duties are to raise objections if it feels that any legislative act of the Assembly favors European over African interests, and in general to propose matters concerning African interests for possible government action.

The racial policies officially pursued by the Federation have come to be known as "partnership." The difficulty is, of course, to interpret the meaning of "partnership." Some Rhodesians believe it to mean eventual full political equality for the African; others are content to let it mean the expansion of the electoral rolls by the addition of a few thousand African voters.

Racial Attitudes Flexible

Although there are certain similarities between the racial policies of the Union of South Africa and Southern Rhodesia, it would be incorrect to describe that of Southern Rhodesia as "apartheid." In both countries, the Africans greatly outnumber the European (four to one in the Union, twenty-seven to one in the Rhodesias) and in both the European seeks to retain a position of economic and political dominance. But European settlement in the Rhodesias dates back only ninety years and for many there are still strong ties to the

homeland. Unlike South Africa, the Rhodesias have no split along national lines and there is only one official language. The system of race relations in the Rhodesias has not had time to harden into the rigid mold found in South Africa. Racial attitudes are still permissive and flexible; there is a limited but growing social intercourse between whites and blacks. Some rights and privileges are extended to the African; on the copper belt in Northern Rhodesia and elsewhere there are African labor unions and the new university at Salisbury is inter-racial. The economic boom accompanying Federation has thus far protected the position of the European worker. Partnership may yet work, but its success depends on continued impetus lent to it by the white community.

The territories of the Central African Federation have experienced rapid economic development in the past decade. Incomes earned in Northern Rhodesia more than tripled in the period 1946-56, and in Southern Rhodesia they rose 78%. Much of this increase is attributable to the influx of European immigrants and capital; today almost 70% of the money national income of Northern Rhodesia is shared by European individuals and companies, and overall national production increased 10% as a result of the increased output in mining and manufacturing. Since 1945 more than \$1 billion of capital has flowed into the Rhodesias. The bulk of this new capital was British in origin. Frequently it took the form of Rhodesian subsidiaries of large British firms. United States' private investors have contributed some \$50 million, virtually all of which was placed in copper, chrome, manganese, and lithium mines. Loans from public sources to the Rhodesias include \$56 million from the U.S. government for road and rail improvements and three loans, totalling \$122 million, from the International Bank for Reconstruction and Development, for railways and for the great electric power project of the Kariba gorge. Because of domestic prosperity the Rhodesias are becoming constantly less dependent on external sources of capital. Much of the money needed for industrial and public utilities projects can now be found from savings at home. The existence of these savings creates investment confidence abroad and makes new loans even easier for the Rhodesian government to obtain.

Large Mineral Exporter

The Federation is Africa's second largest exporter of minerals, exceeded only by the Union of South Africa. Copper from the mines of the Copper Belt has been the basis of Northern Rhodesia's prosperity. This area, the world's second largest pro-

ducer of copper, provides over 80% of the Federation's exports and 23% of the revenue of the Federal and territorial governments. Northern Rhodesia paid 65% of the total income taxes paid in the Federation. The Copper Belt employs 8,000 European mine workers and almost 50,000 African miners. It is evident that, although agricultural production is of importance, the determining factor in the Northern Rhodesian economy is the world market price of copper.

Southern Rhodesia has built its postwar economic progress on a more varied foundation. Mineral output (gold, asbestos, and chrome) amounted to \$65 million in 1956 but was exceeded in value by the tobacco crop (\$78 million). Next to copper, tobacco was the Federation's biggest export. Postwar immigration has caused a striking rise in Southern Rhodesia's industrial production. The new settlers needed homes, requiring the production of cement and other building supplies. With high levels of employment went demands for consumer goods, and to meet these, as well as the requirements of the expanding mining and agricultural sectors of the economy, a secondary iron and steel industry has arisen. Production in Southern Rhodesia has quadrupled since World War II and the labor force has likewise risen. In 1951, a total 98,000 Africans were employed in industry; by 1956, this rose to 604,000. The rate of industrial expansion in Southern Rhodesia might have been even greater, had it not been limited by shortages in transport and in labor. Although new labor might have been drawn into industry from agriculture, this would, in the long run, be injurious to the economy, since it would necessitate greater imports of food.

Nyasaland, the smallest of the territories, is also the poorest. Its economy is based chiefly on agricultural cash crops (tobacco, cotton, peanuts, and maize) and on the export of Nyasaland labor. Many of the workers for both Rhodesian industry and South African mines come from this territory. Wage levels outside Nyasaland are considerably higher and the incentives to engage in industrial work are much greater than those of the subsistence farming levels at home. Outside the territory, 160,000 Nyasalanders are employed for wages, compared to 100,000 inside, and more than \$3 million is contributed to the Nyasaland economy annually by remittances from those working in other territories.

A five-year development plan calls for expenditure of \$26 million on agricultural assistance, communications, and new African housing facilities. There is also the possibility that the entire Nyasaland economy can be transformed by the Shire Valley

electric project, creating cheap power for industry, but the estimated cost of even the first stages of the scheme has been prohibitively high. Despite Nyasaland's comparative backwardness in industrial development the role of the African producer is greater here than in Southern Rhodesia. More than half of Nyasaland's exports are cash crops from African farms, whereas in Southern Rhodesia where there are large European farms, African producers contribute little to the cash crops sold.

U. S. Investments

The Federation of Rhodesia and Nyasaland has been one of the most important areas of American private investment in Africa. Present investment and future American strategic dependence on the minerals of the Rhodesias, particularly copper, means that America is vitally concerned with the political forces shaping Rhodesia's future. The base for sound economic development exists in the territories; there are both natural resources and skilled labor available. There are reasonable prospects of maintaining a high degree of employment and hence a ready market for American and other imported goods. The Rhodesias therefore are not only important as areas for potential investment but also as markets for American exports.

The United States has a political interest in the formation of a strong democracy in the Federation in which both Africans and Europeans will participate in government. Southern Rhodesia is leading the Federation in pressing for Dominion status by 1960, which would free the Federation of all control by the British colonial office. When that point is reached the European minority will be able to determine what the racial policies of the Federation will be. The Africans have thus far reluctantly accepted the "partnership," hoping that more concrete meaning will be given to it. The election of 1958 clearly indicated that progress in this direction will be slow.

Ghana

Created an independent country on March 6, 1957, from the former British colony of the Gold Coast, Ghana is the most recent of the new states to emerge from the ferment of postwar African nationalism. Although a small country (91,843 square miles), Ghana, the newest independent member of the British Commonwealth, is the most advanced of all the purely African states of the continent. Ghana's economy, based on cocoa, is the most prosperous of the territories of West

Africa, although, at the same time, it is highly vulnerable to changes in the world price of cocoa.

Internally, Ghana is divided into three territories, the Colony, Ashanti, and the Northern Territories. The Colony is the southernmost area along the coast; more than one half of Ghana's 4,000,000 people live here. In the Colony, a large part of the cocoa crop is grown and most of the mining is carried on. Concentrated here are the trading interests of the capital, Accra, and the new artificial port of Tema, opened in 1958. To the north of the Colony is Ashanti, an old and proud federation of native states whose people resisted strongly the coming of the British. Ghana's poorest area, the Northern Territories, is populated by small tribal groups, most of whom have been converted to Islam.

The coast of Ghana was first seen by Portuguese traders in 1470. They were followed by the English (1553), the Dutch (1595), and the Swedes (1640). British rule over the Gold Coast began in 1820, but it was not until after quelling the severe resistance of the Ashanti in 1901 that it was firmly established. British Togoland, formerly a colony of Germany, was incorporated into Ghana by referendum in 1956.

The central figure in the Ghanaian independence struggle, Kwame Nkrumah, became Ghana's first prime minister. Nkrumah, educated in the United States at Lincoln University, returned to Ghana in 1947 to become secretary of a new nationalist group, the United Gold Coast Convention. Disappointed at the failure of the UGCC to press more quickly for self-government, Nkrumah formed his own party, the Convention Peoples Party, in 1949. After two more years of struggle, during part of which he was imprisoned by the British administration, Nkrumah was released to become Leader of Government Business, in 1951, and six years later chief of the government of an independent Ghana.

Political development since independence has not been without severe difficulties. The CPP first met determined opposition by the chiefs of Ashanti, who felt they were not being given their rightful place in the new government. Nkrumah's party has, however, been able to retain most of its popular support, although a demand still exists for formation of a federal government to give at least some control over local matters to state governments in the Colony, Ashanti, and the Northern Territories. Nkrumah's government has also been faced with the necessity of improving the level of education,

developing new industries, and diversifying the economy to escape dependence on a single crop. Financial aid continues to be extended by Great Britain, and some technical assistance by the United States.

The Accra Conference of April, 1958, indicated that Ghana was seeking to take the lead in urging common foreign policy objectives for the independent states of Africa. Subsequently Nkrumah visited the capitals of these states, where new plans for cooperation were laid down. He has announced that he will seek to sever the link to the British Crown within two years by the creation of a Republic. It is expected, however, that Ghana will remain in the Commonwealth.

Majority Party	Convention Peoples Party
Leader	Kwame Nkrumah
Opposition Party	The United Party
Leader	Kofi Busia

Liberia

Unlike the other territories of West Africa, Liberia has never been a colonial possession and consequently has not shared directly in the nationalism which has swept Africa since 1945. Created as a result of the efforts of the American Colonization Society to settle ex-slaves in West Africa, Liberia celebrated 100 years of independence in 1947. Because of its historical background, the United States has had closer relations with Liberia than with any other West African country. Liberia's government is modelled on the American presidential system, and the Liberian dollar is at par with the American dollar.

A small country of 37,392 square miles, Liberia has a population of 1,500,000 (estimated). Government is largely in the hands of the 15,000 Americo-Liberians, the descendants of the slaves who were freed on these inhospitable shores. Liberia's history has been a story of a long struggle against the forces of nature and, in the early years, against the resentment of the African tribes that inhabited that area of the coast. The soil of Liberia is poor; there are no large natural harbors, and it is one of the heaviest rainfall regions of West Africa. The ex-slave settlers were not only poor, but lacked technical skills to develop the meager resources available. In the latter part of the nineteenth century Liberia was in constant danger of being swallowed up in the aggressive expansion of British and French colonies.

Within the past thirty years, however, Liberia has made remarkable strides. The Firestone Rubber Company established plantations in 1926, and the revenues from this concession (210,000 acres) helped the government to escape from its chronic budget deficits. World War II added great impetus to economic development. Because of Liberia's strategic position, American troops were landed in the country and a start was made on port development. Postwar American aid developed the port of Monrovia at a cost of \$20 million and many types of foreign goods are here unloaded at this free port and repacked without customs duties. There is an excellent intercontinental airport at Roberts Field, fifty-five miles from the capital.

The Liberian government, since 1944 under the energetic and capable leadership of President William S. Tubman, has sought to develop the country's natural resources, but even with outside help, it has thus far been unable to produce sufficient revenue to create much-needed educational and public health facilities. Illiteracy is still high among tribal groups in the interior and they have little share in the governing of the country. The rate of development has been hindered by the sparse population of many parts of the interior; some 35% of the country has only four or fewer persons per square mile.

Rubber is Liberia's most important cash crop. In 1945, it represented 96% of the total exports, but with the development of iron ore, it has declined to about 60% at present. The Firestone plantations employ 25,000 workers and produce about 40,000 tons of rubber annually. Liberia's only other major export is iron ore from the Bomi hills, 45 miles northwest of Monrovia. It is estimated that there are twenty million tons of ore, containing 68% iron, and a further 100 million tons of 30-35% iron. Exporting over 1,000,000 tons of ore a year, Liberia supplies about 1% of America's needs. Some gold and diamonds are produced, and there are prospects that new mineral sources may shortly be opened. The United States provides about two-thirds of Liberia's imports. In recent years the government has added to its revenues through extensive registering of merchant ships under the Liberian flag.

Nigeria

Today the largest remaining British colony, Nigeria is scheduled for independence in 1960, following the pattern set in 1957 by Ghana. Including the British Cameroons (under United Nations Trusteeship), Nigeria has an area of 373,250 square

miles (four times as large as the United Kingdom) and has a population of over 32,000,000.

For purposes of government, Nigeria is divided into the Northern Region, the Western Region, the Eastern Region, the Cameroons, and federal territory surrounding the capital, Lagos, which is roughly analogous to the District of Columbia in the United States. Each of the regions has its own government—a legislature and a cabinet—modelled on the British system. In Lagos, there are a federal government, with a single legislative house, and a federal prime minister (now the Right Honorable Mr. Tafawa Balewa). The Eastern and Western Regions have attained full self-governing status, and the Northern Region is expected to do so shortly. The link with the British Crown is maintained by a Governor-General, whose powers, under the most recent constitutional changes (1956), are quite restricted.

In common with the other territories of West Africa, Nigeria has advanced rapidly on the road to self-government since 1945. Although British control over the colony was established in 1900, little effort was made before World War II to introduce popular representation. An efficient system of colonial administration was established, at the head of which was a Legislative Council with a few African elected members, but only in 1946 were popularly elected Regional Houses of Assembly created.

The Regions into which Nigeria is divided reflect the major tribal groupings. In the West the Yoruba are concentrated, in the East, the Ibo and the Ibibio, and in the North, the Hausa and the Fulani. The North, the largest of the Regions, has more than half the population of the country. Its people are in great majority Muslims, with a strong cultural and linguistic tie to Egypt and the Arabian Peninsula. Their old system of rule still survives through the Emirs, the descendants of Fulani invaders who conquered the area in the late eighteenth century. As independence draws nearer, there is a strong movement afoot to create additional regions, particularly in the southern part of the North, where the so-called "pagan" people live, who are not related to the Hausa majority in the rest of the Region.

The political parties of Nigeria reflect the ethnic groupings. The majority party in the Western Region, the Action Group, is chiefly Yoruba; in the East, the National Council of Nigeria and the Cameroons is the party of the Ibos, and in the North, the Northern Peoples' Congress is the party of the Fulani Emirs. With the tribal divisions of the Regions, one of Nigeria's most serious problems before independence is to

create a national party that can count on a majority support in the country as a whole. Hitherto this has not been possible, and in consequence the stability of the country may be undermined when the last vestiges of British control are removed.

Nigeria is perhaps the richest of the West African territories in variety of natural resources. In agriculture (the occupation of the large majority of the people) the chief export crops are cocoa in the West, peanuts in the North, and palm oil in the East. Food crops (maize, cassava, yams, and rice) are produced in abundance, as are cattle in the North. Mining occupies a lesser place in the economy, but the exports of tin are valued at more than \$15,000,000 annually. Virtually the entire world's supply of columbite, a rare metal used in alloys for jet engines, comes from Nigeria. There are good prospects for commercial oil production in Eastern Nigeria. Nigerian industry is still in its early stages of development but with the rapid spread of education it is expected that within a few years many of the products now imported will be manufactured at home by skilled Nigerian labor.

If the difficulties of regionalism can be overcome, Nigeria will emerge as the strongest and most prosperous state of West Africa. Her leaders have already indicated strong pro-Western sympathies, and it is expected that she will remain a part of the Commonwealth after independence has been reached.

<i>Major Political Parties</i>	<i>Leaders</i>
National Council of Nigeria and the Cameroons	Dr. Nnamdi Azikiwe
Action Group	Mr. Obafemi Awolowo
Northern Peoples' Congress	The Sardauna of Sokoto

The Sudan

The Sudan, among the latest of the new states of Africa to appear on the world stage, became independent on January 1, 1956. A vast territory stretching south from the Egyptian border to the northern borders of Kenya, Uganda, and the Belgian Congo, it covers almost 1,000,000 square miles—as much as all the NATO countries of Europe combined. The most recent estimates indicate a population of nearly 9,000,000. Within its borders are the Saharan desert areas of the North, the fertile central belt, the pivot of the country's

economic and political life, and the lush green tropical forests of the South.

In the North are the Berbers and other nomadic Arab tribes; further south is a scattered mixture of Nilotic and Hamitic peoples, as well as Negroid groups. Those living in the gigantic Sudd region, a marshy area between the Nile and the Congo watersheds, make their precarious living by hunting and fishing. Like other African countries, the Sudan suffers from tribal regionalism, which makes all the more difficult the work of the central government at Khartoum. There is no cultural unity in the country: the North is Muslim, the South, pagan. Arabic is considered the standard language, but it is understood only in the more economically advanced areas of the North. In the South alone, thirty-two separate languages and 250 dialects are spoken.

Recorded history of the Sudan goes back to the nineteenth century a.c., when the Egyptian pharaohs took an interest in the slaves from "Nubia." The story of the Sudan is one of a constant succession of invaders from Asia; Arab kingdoms were established by the sixteenth century, and later, Egyptian rulers seized the country. A fanatical Muslim revolt led by the Mahdi forced out Egyptian control (and British forces led by General Gordon) for a period of eleven years in the late nineteenth century. In 1898, however, Anglo-Egyptian control was re-established in the form of a condominium, which lasted formally until 1951. Under this arrangement both countries were supposed to share the responsibility of government, but effective control remained in the hands of the British until independence.

The first two years of rule by the Sudanese have been remarkably successful, in the light of the potentially disruptive issues with which the new government has had to deal. In the March, 1958, elections the Ummah Party won sixty-eight seats in the House, the National Unionists won forty-seven seats, the People's Democratic Party twenty-six. Thirty-two seats went to other parties. In the Senate, the Ummah won fourteen seats, the National Unionists five, the People's Democratic Party four, the remaining seven seats going to independents of the two factions of the Liberal Party.

The Sudan's economy is built on a single export crop, long-staple cotton, which constitutes over 70% of all Sudanese exports and is the chief source of foreign currency. Much of the crop is produced in the Gezira area, where over 1,000,000 acres of irrigated land are cultivated on a cooperative basis between the government and tenant farmers. The Gezira irrigation scheme is the world's largest agricultural cooperative. Except for basic foodstuffs, the

only other important crop is gum arabic, but there is an important potential market for the vast supplies of papyrus of the Sudd for the world's paper needs. The vulnerability of the Sudanese economy to the world price of cotton offers opportunities to the Soviets, who have been seeking to expand trade relations between the satellite countries and the Sudan.

Sudanese foreign policy since independence has been one of positive neutralism. By this, the Sudanese leaders mean neutrality, not only toward East and West but toward Egypt as well. Because both countries depend for their crops on the waters of the Nile, relations between them have in past been seriously strained. Should the Sudan (in cooperation perhaps with Ethiopia) seek to cut off Egypt from the upper Nile, Egypt would have little alternative but to settle the issue by force of arms. The Sudan has a cultural affinity to the Muslim world but she is equally conscious of the importance of her position as an African state. Such is the determination of the Sudan to avoid involvement in the East-West conflict that the signing of a technical aid agreement with the United States created a major political upheaval, during which the overturn of Prime Minister Khalil's government was narrowly averted.

The Union of South Africa

On April 16, 1958, the voters of the Union of South Africa returned the Nationalist Party to power in the House of Assembly by a majority of forty-three seats. The significance of this expression of confidence in the Nationalist Party was to reaffirm the policy of "apartheid," or racial segregation, in South Africa. The Nationalists, in power since 1948, gained a larger number of seats than they ever previously had. Opposing the 163 members of this party in the new legislature will be 103 United Party representatives and seven representatives of the non-white population. In previous elections, smaller groups, such as the Labor Party, were able to gain a few seats but in 1958 these minor groups were eliminated entirely.

Although the Nationalists, who are the strongest supporters of "apartheid," were able to take a substantial majority of the seats, the popular vote was much closer than it would appear to have been; 642,069 Nationalist votes were cast to 503,639 United Party ballots. In twenty-four seats, the United Party was unopposed so that in these no real test of strength was made. The reason for the discrepancy between the total votes cast for a party and the number of seats obtained arises from the

altering of constituencies to give heavier weight to the rural vote (which is predominantly Nationalist) as against that of the urban followers of the United Party.

The two parties owe their origins to the two main European groups, the Boers (descendants of the original colonizers of South Africa, the Dutch) and those of English origin or descent. The Nationalist Party was formed in 1915 by General James Hertzog, a Boer leader. Its early platform, a reaction to the Anglo-Boer struggle in the war of 1899, was based on the demand for complete separation from Great Britain and the formation of a Republic. In 1926, Hertzog accepted Dominion status for South Africa, but he was unable to persuade all his supporters to back him. In 1933 the United Party was formed by General Jan Christian Smuts (an internationally known Boer leader) and Hertzog. The extreme Boer nationalists shortly afterward broke away from Hertzog to remain with the Nationalists, led by Dr. Daniel F. Malan. The Nationalists continued to assert their demand for a republic, and in 1939 sought to maintain South Africa's neutrality in World War II. Their efforts were defeated and the Union entered the war under the leadership of Smuts and the United Party. In 1948, the Nationalists under Malan again came to power and today, led by Prime Minister Hendrik Verwoerd, they still continue the fight for the Republic and for white supremacy.

Although the two parties are based on the Afrikaans and the English speaking groups, there are substantial numbers of Boers in the United Party. On race policy, many Boers find no difficulty in supporting this party since it, too, stands for white supremacy. It is not prepared to go as far as the Nationalists in separation of the races, but on the question of the place of the Bantu in South Africa, the difference between the parties is one of degree rather than of principle. The United Party is pledged, in fact, not to repeal key racial legislation but it would modify and liberalize some of the restrictive measures now imposed. An added factor in Nationalist Party's favor is that South Africa has seen a period of prosperity in the five years preceding the 1958 elections and the Nationalists were able to capitalize on this.

Apartheid

The outstanding feature of the internal situation of South Africa over the past ten years has been the effort of the Nationalist government to apply a policy of apartheid. The cornerstones of apartheid, as they are erected by South African leaders, are the determination of the white South Africans to maintain a separate and distinct racial entity and, on the other

hand, the expressed desire to permit the Negro population to develop rights of national self-expression in the political and economic sphere, but in its own way, not in competition with the European. This position is based on the argument that the Bantu population differs from the European in culture, religion, and way of life, and that in consequence the only possibility for sound development in South Africa is to disentangle the two races, letting each go forward in its own way. The Boer feels that, because he is already outnumbered four to one by the Bantu and because he is living on the fringe of a vast Negro continent, he must strive to prevent the Bantu from swamping him.

In its ultimate form, the policy of apartheid is envisaged as total separation of the races by removing the Bantu from those areas presently occupied by Europeans. They would be forced to live in reserved areas which would be under African forms of local government. These areas would be industrialized gradually (using European technical and financial assistance) so that there would be no need to leave the area for work. Supporters of apartheid cite the TVA development in the United States as an example of how the Bantu areas might be developed. It is, of course, universally acknowledged that complete separation is not possible in the foreseeable future but this is the ultimate goal toward which racial policy is directed.

Major Enforcement Acts

Several legislative acts to enforce certain aspects of apartheid have been promulgated in South Africa during the past five years. The chief acts are:

- 1) Separate Representation of Voters Act (1951). This removed the colored (in South African terms, those of mixed Negro and white blood) voters from the common voting lists, placing them on separate lists to vote for their own candidates only. The Supreme Court declared the act invalid, but the Nationalists overcame the Court's objections by changing the composition of the Senate so that a two-thirds majority of both houses was obtained to override the Court veto.

- 2) Group Areas Act (1950). This act forms the cornerstone of apartheid. It defines areas in which the three racial groups (whites, coloreds, and natives) may live and own property. Under this Act, Africans may be removed from any white area by summary action of the government.

- 3) Bantu Education Act (1954). By this act, control over the education of Africans was transferred from the provinces to the Minister of Native Affairs of the Union. In many ways it is the clearest expression of the real philosophy behind apartheid, in that it clearly assumes that a European

education is not compatible with either African ideas or the place which it is expected the African will take in the future of the Union. The intention of the act is to prevent the educated African from desiring to become integrated into the European community. The Act particularly affected the schools for Africans operated by church groups, as they were permitted to continue only with permission of the Minister of Native Affairs and even then at a greatly reduced government subsidy.

In addition to these major acts, apartheid is enforced by a complex system of statutes designed to control the movements of Africans (the pass laws), and to regulate political and social activities, both of whites and natives, to keep the two groups from having more than minimum contact.

Policies of racial segregation in South Africa today are the product of more than 300 years of South African history. Dutch settlers first came to South Africa in 1652. By the beginning of the eighteenth century, nearly 2,000 settlers were established. Although the colony was made up of Europeans from various countries, it assumed a thoroughly Dutch character.

Gradually the settlements advanced northward, seeking new farming and grazing lands until they came in contact with the Bantu people who were slowly pushing southward. The historic justification of apartheid today is based on the Boer claim that they, not the present Africans, were first in possession of the present territories of the Union and that, therefore, the African has no more claim to the land than does the European. The devoutly pious Boer group is reinforced in its racial attitudes by the doctrines of the Reformed Church, which draws from Biblical interpretation reasons for segregation of the races and subordination of the blacks to the whites.

In consequence of the Napoleonic wars, Britain gained control over the Cape Colony in 1814 and within seven years 5,000 British settlers had taken up residence. The British administration freed the slaves upon whom many Boer farmers depended for labor and sought to establish equality of rights for the colored population, who worked in the main for Boer landowners. By the mid-nineteenth century the present form of the Union was emerging; settlers were scattered on the northern side of the Vaal and Orange rivers. In 1877, the British annexed the Transvaal territory, and although it was relinquished again in 1881, the act created bitter resentment among the Dutch settlers. Discovery of gold a few years later, and the work of Cecil Rhodes in opening the diamond industry, added new and complex problems

to the relationship between the British administration and the Boers. The conflict between the Imperialism of England and the Republicanism of the Boer colonies culminated in the Jameson Raid which was the opening gun of the bitter Anglo-Boer war (1899-1900).

Bitterness Remains

The two years of war paved the way for the creation of the Union of South Africa, but it left behind a bitterness which lasts until today. The Union in its present form came into existence in 1910 by the South Africa Act. At its head is the Union Government and within each of the four provinces (Cape, Transvaal, Orange Free State, and Natal) there are provincial parliaments. The dual nature of the Union is illustrated by the fact that there are two capitals (Cape Town and Pretoria), two official languages (English and Afrikaans), two flags, and two national anthems. The Union Parliament is made up of the House of Assembly and a Senate of eighty-nine members, each province being represented in the Senate in proportion to the number of voters in it. The Union Government controls the bulk of the power and employs the larger part of the civil service. Here again, the racial question enters the scene; only "civilized" (i.e. European) labor is generally employed, although Africans occupy minor posts, such as clerks, and interpreters.

Separation of the races appears in almost every aspect of South African life, from the conduct of government to the contacts between individuals. Essentially based on historic bitterness, fear of loss of economic and social privileges, and rationalized by religious doctrine, the apartheid of South Africa runs counter to the trend toward closing the gap between Europeans and Africans seen in most other areas of the continent. Apart of its moral aspects, apartheid as a doctrine has not as yet produced much concrete result. It has failed to stem the rush of Africans to urban areas, and, with the growth of industry in the South African economy, unless new sources of European labor are found, the Bantu will continue to find work in the cities. Moreover, the Africans have shown little evidence that they appreciate the efforts of the government to give them separate education and traditional local government bodies.

The Weakness of Race Theory

The real weakness of the entire apartheid theory lies, of course, in its failure to come to grips with the European's need for African labor if European customs and standards of living are to be

maintained. Separation of the races, were it carried out fully, would imply radical changes in the European way of life (the absence of African household servants, for example) and extensive alteration in the plans for future industrial development. The process of industrialization itself creates an interdependence between the African and the European which tends to defeat the direction taken by apartheid. The African's wants and aspirations become the same as those of the European if he lives in a European environment and, at the same time, as the African's services are increasingly needed in industry, it becomes all the more difficult to separate him from the European.

Internal tensions created by the implementation of apartheid have not prevented a rapid expansion of the South African economy. South Africa had traditionally a predominantly agricultural economy and, even from the earliest days of settlement, it was reasonably prosperous, except of course in the areas of African subsistence farming. The rise of a mining industry—with the discovery of gold and diamonds—transformed the South African economy but gradually since World War I the economic focus has been shifting to the cities and the industries growing up around them. Growth in the national income of South Africa has been almost uninterrupted since 1919 (except for the depression). In the industrial sphere alone, the output of South African industries rose from \$58 million in 1929 to over \$4 billion in 1957.

The Union is well known as one of the world's chief gold producers (over \$10 billion worth has been produced so far). In addition, there have been developed important mining operations in uranium and other fissionable materials, as well as chrome, manganese, and copper. No supplies of oil have yet been discovered, nor are there extensive sources of hydroelectric power but coal, of which there exists ample resources, can be delivered more cheaply at the minehead than anywhere else in the world, so that industry has no problem in obtaining needed electricity.

Manufacturing now contributes the largest share of the Union's national income. Over 50% of the raw materials used in industry are produced within the Union. Some 300,000 Europeans are employed in industry and over 500,000 Africans. There is, however, considerable gap between the wage scale of Europeans and of Africans and for some industries this has created a serious problem. Faced with rising costs, industry has sought to employ more African labor, but, since the Government is not prepared to see the living standard of the unskilled white worker fall below

"civilized" standards, pressure and inducements have been applied to retain white employees. Import quotas and tariff manipulations have aided some industries to escape the inevitable consequence of higher prices but only at the cost of severe inflationary pressures at home.

New Capital Needed

Economic expansion has created a need for new capital resources and since World War II over \$2 billion of foreign capital—chiefly British and European—has flowed into South Africa. Some \$289 million of American private capital has been invested in the Union and the American Export-Import Bank has loaned \$150 million for development of uranium resources. A further \$160 million has come from the International Bank. If the Union is to continue its growth both in the manufacturing and in the processing of raw materials there would appear to be little alternative to employing and training more African workers since the skilled labor supply in some industries is already short. It remains to be seen how this need can be reconciled with the expressed goals of apartheid.

To a greater degree than any other parts of Africa, the Union is dependent on the United States and Great Britain for economic support. Gold, the price of which South Africa does not control, makes up in value half the total exports. The Union's economy is therefore sensitive to the fluctuations in the price of gold on the world market. South Africa's exports to the United States covered only one-quarter to one-third of her imports from this country so that there is a continuing dollar deficit, making necessary retention of wartime exchange controls.

The Union also has a vital strategic interest for the United States, since the alternate shipping lanes to Europe, if the Suez Canal were closed, could be controlled by South Africans from their own bases. The South African government has declared that it is taking a close interest in developments in Africa north of the Union and in particular, the government has announced that it is keeping watch on possible communist activity within the Union and on attempts to influence the Union's racial policies from other parts of Africa. The United States has long been under pressure from groups at home and from some allies to take a strong stand of disapproval against South African apartheid doctrines. We have however regarded such a step as interference with the internal affairs of a foreign nation and have indicated no official opinion on the matter.

LATIN AMERICA IN GENERAL

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CONTEMPORARY Latin America cannot be understood except against a background of very rapid change. Since World War I, industrialization has hit Latin America with increasing force, and has brought in its train profound alterations in the nations' economies, social systems, and political life.

Today no country is totally untouched by these currents, though some remain relatively less affected than others.

Developments in Latin America are part of a world-wide movement, arising from the spread of modern manufacturing industry from Western Europe and the United States, into those areas generally known as "underdeveloped." The demands of the older industrialized countries for foodstuffs and raw materials introduced Latin America to modern industry. Plantations and mines established to supply needs of the industrial nations used modern methods, trained groups of industrial workers, and in some cases accumulated small amounts of capital for investment in further industrial expansion.

The economies of most Latin American countries were excessively dependent on the export of a narrow range of raw material or food products. Brazil and half a dozen others depended mainly on coffee; Chile on nitrates and copper; Cuba, Puerto Rico and most of the British West Indies on sugar. The Latin American countries depended on the sale of these goods to pay for importation of manufactured products and some foodstuffs.

Opening up of raw material and foodstuff resources of Latin America was made possible by heavy private investments from abroad. Frequently those making investments obtained extensive privileges; foreign investors often meddled in local politics; not infrequently during the period of "Dollar Diplomacy" they called on home governments for diplomatic and military help when they got into difficulties.

The Industrial Revolution

The prices of Latin American raw materials and foodstuffs were subject to rapid changes, leading to great instability in income of the Latin American exporting

nations. Furthermore, on three occasions—during the two world wars and the depression—these countries found themselves cut off from markets to which they sold their products, and even more, from sources from which they imported needed goods. As a result, they increasingly undertook to produce for themselves basic consumer goods, simple processed foodstuffs, and construction materials. The Industrial Revolution had begun in Latin America.

Today, industrialization has become virtually an article of faith with most politically active people in Latin America. With demands for manufacturing industry, there is desire for extension of transportation facilities and public utilities, development of sources of raw materials, and diversification of agriculture.

Such economic development has inevitably engendered forces seeking social change. Pre-industrial Latin America was for the most part a region of very large landholdings, where the great majority of the people scraped subsistence from soil granted for their use by the landlords, in return for virtually free labor on the rest of the landlords' holdings. They thus provided little or no market for manufactured goods.

The government, like the economy, was generally in the hands of landowners, and politics throughout the nineteenth and early twentieth centuries was largely a game played by elements of the upper strata. The lower economic classes were called upon to play little role, except from time to time to provide manpower for contending armies in not infrequent civil wars. The ruling oligarchy depended greatly on the armies to maintain the status quo, and this, together with general political instability, led to development of a tradition of military meddling in politics and frequent army dictatorships, which still persists.

Changes, Social and Economic

The new social classes brought into existence by the growing industrialization in Latin America sought to change this traditional economic and social pattern. The ruling landowner class frequently was hostile to industrialization, fearing that it would undermine its grip on the soil.

They also feared that urban industries would draw workers from the rural labor force. The new class of industrialists, on the other hand, needed land redistribution to bring rural workers into the market and give them income to buy manufactures.

As a result, since World War I, there has grown up in Latin America a wide range of movements of protest. In spite of ideological differences, all these movements have agreed on the need for economic development, for obtaining "economic independence," and for breaking the domination of landlords and military men in politics and society. Virtually all these movements called for greater participation of the masses in political life, and most sought the establishment of political democracy.

Some of these movements have arisen within the traditional Conservative, Liberal, and Radical parties. Others have formed new parties on European models, such as the Socialists, Communists, and Christian Democrats. But most political parties seeking to transform Latin American society are indigenous groups.

A minority of these indigenous parties, such as the Peronistas in Argentina and the followers of Getulio Vargas in Brazil, have had a totalitarian twist. However, a great majority, which may be called "Aprista" or "national revolutionary" parties, have included attainment of political democracy among their fundamental objectives. Aprista parties have appeared in Peru (the Partido Aprista Peruano), Venezuela (Acción Democrática), Paraguay (Partido Febrerista), Costa Rica (Liberación Nacional), Puerto Rico (Partido Popular Democrático), Bolivia (Movimiento Nacionalista Revolucionario), and for a while in Cuba, (Auténtico and Ortodoxo parties). The Mexican Revolution has developed a party of a peculiar genre, the Partido Revolucionario Institucional, the exact counterpart of which cannot be found in any other Latin American nation.

It is these indigenous parties that have largely prevented communism from being more powerful than it is in Latin America. Although there is a Communist Party in every Latin American country, Communist influence has risen and fallen at various times. It was at its peak during World War II, but subsequently suffered a series of defeats. In recent years, the Soviet Union has sought to strengthen its influence and that of the Communists by dangling lucrative trade proposals before Latin Americans. However, generally in those countries which have strong indigenous social reform parties, the Communists have remained weak.

The struggle between dictatorship and democracy, the most critical political problem in recent years, can only be understood in terms of these fundamental economic, social, and political changes. There is a great variety of dictatorships and there are varying shades of democracy in Latin America. Some of the dictatorships of recent memory have been attempts to prevent the development of a social revolution, others have grown out of revolutionary movements, while still others have been purely military or personal regimes, but have inadvertently brought about changes which paved the way for broad social reform. In our discussion of individual countries, these differences should become more evident.

Mexico

Modern Mexico is a product of the revolution which began in 1910. This revolution made social, economic, and political changes which paved the way for the rapid economic development since 1940, as well as preparing the basis for a slow development of political democracy.

Pre-revolutionary Mexico was a semi-feudal country. The land was in the hands of a small group of large landowners. During the regime of Porfirio Díaz, from 1875 to 1910, virtually all Indian communities had disappeared, and almost all the government's lands had been given to favored friends of the Díaz administration. Most of the country's inhabitants were landless tenants. Railroads had been built widely under Díaz and some manufacturing industries had been started—particularly textiles around Puebla and Mexico City, and a small iron and steel plant in Monterey—but their market was limited by the poverty of the people.

The revolution began as a revolt against the re-election of Díaz, an octogenarian. However, in a short time the movement took on a social tinge as indicated by the revolutionary constitution of 1917, which provided for thorough-going agrarian reform, extensive labor legislation, and an assertion of the nation's ownership of sub-soil resources.

There were various stages to the revolution, which culminated in the administration of President Lázaro Cárdenas from 1934 to 1940. During the six years of his rule, agrarian reform was virtually completed, the constitutional assertion of the nation's right to sub-soil resources was made effective by nationalization of the petroleum industry, and the Banco de México was reorganized.

Agrarian reform created a large group of small farmers, many with personal title to

their lands, others members of "ejidos" or cooperative farms. The growth of this class meant creation of a much larger internal market for manufactured goods, and paved the way for industrialization.

After the war, Mexican industrialization was aided by extensive foreign investment, particularly from the United States. Automobile assembly plants, electrical products, factories, and clothing manufacturing plants, were among these new foreign-owned establishments.

The country's social service institutions and educational system expanded rapidly. An ample social security system was established in the 1940's, while the Ministry of Education steadily received the largest amount of money of any government department.

Democratic institutions became stronger and Mexico had perhaps the most stable government in Latin America during the 1940's and 1950's. Three successive presidential elections were held without any major incident or attempt to overthrow the government in 1948, 1952, and 1958. Freedom of the press, speech, and thought were generally respected. The principal weakness of the country's democratic structure was the fact that elections were still "managed" by the government party, which in 1948 acquired the name Partido Revolucionario Institucional.

The PRI has a very strongly entrenched machine. Virtually all government employees belong to it, and the labor and peasant unions with few exceptions support it.

In addition to the PRI there are at least three other permanent parties in Mexico: the Partido Accion Nacional, Partido Popular, and Partido Comunista. The first is a conservative group which is strongly Catholic in its orientation. The second is headed by Vicente Lombardo Toledano, leader of the Communist trade-union setup in Latin America, the Confederación de Trabajadores de America Latina. The Partido Comunista is the official Communist Party of Mexico.

SOUTH AMERICA

Argentina

May 1, 1958, marked the beginning of a new period in Argentine political development. On that day Dr. Arturo Frondizi was inaugurated as constitutional president of the republic after two and a half years of provisional government.

Inauguration of Dr. Frondizi ended almost fifteen years of domination by Juan

Domingo Perón. He was military dictator between June, 1943, and June, 1946, and had been President of Argentina for more than nine years thereafter. Overthrown by a military insurrection in September, 1955, Perón continued to be the major problem facing the army and navy officers who governed the country until May, 1958.

One of the principal tasks facing Dr. Frondizi when he took over the government was that of putting a definitive end to the Perón era. His success in achieving the pacification of the country will undoubtedly depend upon his ability to handle Argentina's economic problems.

Frondizi realized early in the Perón era that Perón's dictatorship had brought fundamental changes to Argentina. It had transferred political power from the agricultural landlord class to the cities; it had stimulated industrialization of the country; it had resulted in development of a 2,500,000-member labor movement, a powerful force even after the departure of Perón. He was virtually the only major politician to understand these changes, and even during the Perón administration he sought to make it clear that he was not opposed to the social and economic gains of the workers under Perón, but only to his dictatorship and his mistaken economic policies.

Sought Perón Support

Frondizi frankly sought the votes of Perón's followers during the 1958 campaign. He was assured of most of them when Perón sent a message backing Frondizi. He also enjoyed the support of the Communists and the right-wing Catholics organized in the so-called Union Federal.

The size of Frondizi's victory assured that no attempt would be made to keep him from becoming President. There were elements in the armed forces violently opposed to Frondizi, feeling that he was little better than Perón. Once he had won, there was general agreement among civilians of all political parties that military domination of the government be ended.

Frondizi faces serious problems. He must restore the confidence of the workers in the government's intentions towards them. The first move of the Frondizi government in this direction was to decree a general wage increase for all wage and salary earners.

The most serious problems facing Frondizi can be summed up under two headings: decapitalization of the country's economy, and a strongly unfavorable balance of payments.

The capital equipment of much of Argentina's economy is grossly out of date. About 60% of railroad steam locomotives

are over forty years of age. Much track is dangerously run down. At least several hundred million dollars will be needed to put Argentine railroads into good condition.

The highway system suffers the same lack of repair. The country is grossly under-equipped with agricultural implements and machinery, of prime importance to production of meat, wheat, corn, and linseed, upon which Argentina depends for most of its foreign exchange earnings. Even much of the equipment of the nation's manufacturing industry is inadequate.

Unfavorable Trade Balance

The job of re-equipping the Argentine economy is seriously hampered by the country's unfavorable balance of trade. It is estimated that several billion dollars will be necessary to import equipment or pay interest on loans raised to bring in the machinery. However, Argentina has been spending abroad about \$300,000,000 a year more than the value of the goods it has been selling to foreign countries. This makes it exceedingly difficult to pay for the necessary imports of capital goods.

There are two ways to remedy this situation: increasing exports and decreasing non-capital imports. During the last few decades there has been a constant decline in the amount of Argentine agricultural products available for export—owing to increased consumption within the country and the decline in the nation's output.

The Frondizi regime has programs for expanding agricultural production for export. It proposes to stimulate local production of agricultural machinery, increase distribution of up-to-date technical information, and encourage the shift from export products such as wheat, which are highly competitive, to corn and meat, for which there is a larger and readier market.

At the same time, the Frondizi regime hopes to reduce imports of petroleum, the single largest import item. Although Frondizi proposes to leave overall control of the oil industry in the hands of the government oil firm, YPF, it also is anxious to obtain the services of foreign oil companies in exploiting Argentina's admittedly rich petroleum reserves.

Bolivia

Since April, 1952, Bolivia has been going through a profound social revolution. Before then, Bolivia was one of the least

progressive countries of Latin America. Most land was in the hands of a small number of large landowners. Some of these traced their ancestry to the Spanish Conquistadores; the forebears of others had stolen the land from the great majority of the people, the Indians, during the nineteenth and early twentieth centuries. The Indians were given small plots of land to grow enough food for their own sustenance, and in return had to work the acres of their landowner and, in addition, give him periodic personal service gratis.

Mining was the principal occupation of the non-agricultural segment of the nation. Bolivia depends for more than 90% of its foreign exchange on the export of minerals, principally tin. Most mining properties were in the hands of three big companies, largely foreign-owned.

In the wake of the Chaco war with Paraguay between 1932 and 1935, which Bolivia lost, a group of new parties arose. One of these was the Movimiento Nacionalista Revolucionario, a nationalist party with a broad program for social change. For two and a half years, between December, 1943, and July, 1946, the MNR participated in the government of President Gualberto Villarroel and its leader, Victor Paz Estenssoro, served as Minister of Finance. During this period the MNR won the loyalty of the country's tin miners by helping them to organize a strong union federation. Under sponsorship of the MNR, a Congress of Indians met a few months before the overthrow of Villarroel, and for the first time the Indians were able to present their grievances to government officials. Villarroel decreed the abolition of compulsory personal service to the landlords, although this decree did not become effective until after the 1952 Revolution.

Villarroel was overthrown in July, 1946, and for nearly six years the MNR was illegal and persecuted. However, it showed that it had won the support of the voters when, in May, 1951, it won a presidential election, with Victor Paz Estenssoro as its nominee. It was not immediately able to enjoy the fruits of its victory, however, because a military junta took over and ruled for eleven months.

In April, 1952, the MNR seized power through an armed revolt. The military police (carabineros) and the armed populace of La Paz and the mining towns defeated the army. Victor Paz Estenssoro was called back from exile to become president.

Paz Estenssoro's regime brought about fundamental reforms. One of its first decrees was to proclaim universal adult suffrage, thus giving the Indians the vote. In October, 1952, the revolutionary government issued a decree nationalizing the

Big Three tin mines, which were turned over to a newly organized government firm, the Corporación Minera de Bolivia. The COMIBOL was faced with tremendous difficulties. Virtually all foreign engineers who directed the operations of the mines were withdrawn or resigned. Labor discipline was relaxed after expropriation, and the mines had surplus workers. More disastrous was the drastic decline in the price of Bolivian mineral products.

In 1957 the situation was made more difficult by the re-establishment of a quota system for world tin production, as a result of a world surplus of the mineral.

Much more fundamental than tin nationalization has been the MNR program of giving most cultivated land of the high plateau to the Indians. Although this redistribution has been progressing slowly, virtually all Indians now have some land and are prospective recipients of more. The MNR government has carried out a program to bring the Indians information on new and better methods of production and to extend them credit. In both of these projects the Bolivians have received extensive help from the U. S. Point Four program. The MNR administration also got underway an extensive program of education for the Indians.

Economic development included building a road network to bring isolated agricultural areas into contact with the market, and opening up the eastern two-thirds of the country, almost completely underdeveloped heretofore. The country also was converted from a heavy importer of petroleum products to a net exporter of oil.

In June, 1956, the MNR presided over its first elections. The government candidate was Ernán Siles, and he won an overwhelming victory. His government continued the general lines of the revolution. Siles relaxed the rigid and undemocratic controls which Paz Estenssoro had exerted over the opposition, keeping no political opponents in jail and allowing an opposition press.

Siles also came to grips with the inflation afflicting Bolivia for a couple of decades, with the result that further inflation virtually ceased, and the foreign exchange value of the boliviano remained stationary at the rate of 8,500 to the dollar. It had been as high as 14,000 to the dollar.

Although the national revolutionary government was bitterly attacked by opposition within the country and by powerful forces abroad, it was continuing to carry out the most profound social change in Latin America since the Mexican Revolution.

Brazil

Since World War II the Brazilian economy has been expanding more rapidly than that of any other Latin American country.

Until 1930, the economy, society, and politics of Brazil was dominated by the owners of coffee "fazendas" in the states of São Paulo and Minas Gerais. The country depended on exports of coffee to pay for manufactured goods and some foodstuffs. Cacao, natural rubber, and a few minerals provided the rest of the nation's export income. The textile industry and some other manufacturing enterprises had been established in São Paulo, Rio de Janeiro, Porto Alegre, Recife, and a few other cities.

The revolution of 1930 placed Getúlio Vargas, former governor of the state of Rio Grande do Sul, in the presidency, where he remained during the next fifteen years. Vargas governed as revolutionary Provisional President until 1934, when, after the writing of a new constitution, he was elected constitutional President. In 1937, soon before his term expired, he made a coup d'état which installed him as dictator, which he remained for eight years.

During the Vargas period, political power passed from the hands of the coffee oligarchy to those of the industrialists and workers of the coastal cities. The Vargas regime encouraged the growth of manufacturing.

Vargas was overthrown in October, 1945, by an army coup d'état. Five years later he was again elected president. In August, 1954, Vargas committed suicide, after the Army had once more suggested that he go on an "extended vacation."

Two of the major Brazilian political parties were founded by Vargas—the Partido Social Democrático and the Partido Trabalhista. The former, a conservative group, draws much of its financial support from the new industrial class which arose under the Vargas regime.

The Partido Trabalhista was originally organized in 1945 by Vargas supporters in the Ministry of Labor and the government-dominated trade unions which had been established during Getúlio's dictatorship. It still draws its principal electoral support from urban workers who tend to regard it as "their" party.

In the 1955 election the Partido Social Democrático and Partido Trabalhista Brasileiro joined forces. Juscelino Kubitschek of the PSD was their successful candidate for President, and João Goulart of the PTB was their victorious nominee for Vice President.

The União Democrática Nacional became the principal anti-Vargas political party, and generally is regarded as representing those economic groups which were displaced from power by the Revolution of 1930. It draws its electoral support principally from the middle class.

The Communist Party chief is Luiz Carlos Prestes, a one-time Army captain who was a leading figure in the military revolts of the 1920's.

Early in 1958, the Supreme Court quashed charges pending against Luiz Carlos Prestes, who dramatically came out of hiding. Although the Communist Party was not officially legalized, it was from then on able to function virtually as if it were a legal political party.

Although the term of office of President Kubitschek will still have two years to run at the end of 1958, preparations for the presidential campaign of 1960 are already under way.

Contemporary Brazilian politics is complicated by a rampant inflation. Brazil has suffered from creeping inflation at least since the middle of the nineteenth century. However, since World War II the rhythm of inflation has increased rapidly. Although wages have increased also, in many parts of the country they have not kept up with the rise in prices. The result is mounting discontent among the urban workers of Brazil.

Economic development of Brazil since 1945 has been phenomenal. The metallurgical industry expanded rapidly, with the establishment of the Volta Redonda steel plant. A heavy chemical industry was established. The aluminum industry grew rapidly. The automobile industry expanded and was scheduled by 1959 to produce 90% of the components of its vehicles within Brazil. The country began to produce such things as typewriters and adding machines.

The pace of Brazilian development gives promise of making Brazil one of the world's major industrial nations. Its muddled politics and incompetent governments, continuing inflation, foreign exchange shortage and the tendency of agriculture to lag behind the development of industry are the chief handicaps to expansion.

Chile

Chile's long tradition of democracy stood another test during 1958 when a vigorous presidential election campaign saw five candidates in the race. This election was held against the background of a

severe economic crisis, which for some years had greatly strained the nation's democracy. Jorge Alessandri, nominee of the Right Wing Conservative and Liberal Parties, was the winner in the vote on September 4.

Chile is an elongated country spreading almost three thousand miles along the mountainous backbone of South America, nowhere more than seventy-five miles in width. Its population is a mixture of Indian and European stock. The country is perhaps most famous as a producer and exporter of nitrates and copper, upon which it depends for virtually all its foreign exchange.

Industrialization of Chile began during World War I and was particularly stimulated by the depression, which disastrously reduced available foreign exchange, and threw the country on its own resources for many of the manufactured goods it needed. The government-owned Chilean Development Corporation helped establish small metallurgical factories, pharmaceutical plants, an oil refinery, wood-working establishments, and other manufacturing enterprises. It also undertook exploration for oil wells in far-southern Tierra del Fuego, and the establishment of a major steel industry, the Cia. Acero del Pacifico, in Talcahuano.

Only agriculture has lagged in Chilean economic development. Although Chile used to be an exporter of wheat and other agricultural products, during the last twenty years it has become an increasingly large importer of these commodities.

Since World War II, the country has been plagued by a racing inflation. Prices rose with increasing rapidity as the result of government expenditures for economic development, pressure on wages, and failure of agriculture to provide necessary foodstuffs.

Democracy Withstands Pressure

Continuing inflation represented a constant threat to Chilean democracy because of the social pressures and discontent it generated. However, the roots of Chilean democracy are deep and so far it has withstood the worst economic pressure, although Chilean politics has grown increasingly chaotic.

From 1939 until 1952 the government was dominated by the middle class, slightly left wing Radical Party which provided three successive presidents—Pedro Aguirre Cerda, Juan Antonio Rios, and Gabriel González Videla. This period of Radical control was marked by rapid economic development and mounting inflation.

The beneficiary of this situation was General Carlos Ibáñez. By the early 1950's, the public had forgotten that he had been a dictator, but remembered that he had maintained "order." He was elected President with the support of the relatively small Agrarian Labor and Popular Socialist parties, but most of his backing came from independents tired of the existing parties.

President Carlos Ibáñez did not again become a dictator. In the economic field his regime attempted to curb the inflation. He negotiated new agreements with the copper and nitrate mining companies, by which these interests expanded their operations.

In spite of his popularity at the time he came into office, Ibáñez soon lost virtually all of his support. In the presidential election of 1958 there was no contestant who was a supporter of Ibáñez.

Colombia

For more than a decade Colombia has been going through a severe political crisis, although its economic development has gone forward. This political crisis has submitted a nation once in the vanguard of democracy to a series of dictatorships. The last of these was overthrown in May, 1957.

Until World War II, Colombia was principally a coffee producer. During the war industrialization gained momentum and the country became virtually self-sufficient in cotton and woolen textiles.

Since the war, industrialization has continued. In the early 1950's a steel industry was established at Paz del Río, and chemical, textile, cement, and metallurgical industries grew in a number of other cities. Unlike industrialization of many Latin American countries, that of Colombia has not been concentrated in a single city. Although manufacturing got its start in the city of Medellín, there were, by the 1950's, important industrial concentrations in the capital, Bogotá; in Cali, in the center of the Cauca Valley; in Baranquilla, at the mouth of the Magdalena River; and in several smaller cities. At the same time, agriculture became more diversified.

Despite the growth of the economy, the political picture has been a sad one since 1948. Late in 1949, the leader of the right wing of the Conservative Party, Laureano Gómez, was elected president in a poll boycotted by the Liberal Party on grounds that a democratic election was impossible.

Attempts by Gómez to establish a corporate state in 1953 resulted in his overthrow by General Rojas Pinilla, Army

commander. In August, 1954, he had himself elected constitutional president by an assembly he himself had named. Thereafter, his regime became increasingly dictatorial.

Finally, in May, 1957, Rojas Pinilla was ousted by a military coup by some of his closest associates. A military junta took over, promising elections within a year. Meanwhile, the Liberals and Conservatives agreed that for twelve years the presidency would alternate between the two parties and congress would be divided equally between them. This agreement culminated with elections of Congress in March, 1958, which showed the Liberals to outnumber the Conservatives by 3 to 2; and of the President, with Alberto Lleras Camargo, a Liberal, being named in May, 1958.

Ecuador

Highland Ecuador is perhaps the Latin American area least touched by the revolution of modern times. The great majority of the people, the Indians and the descendants of the Spanish conquerors whose lands they cultivate, live much as they have for the last four centuries.

Along the coast there is an entirely different civilization. A large part of the population consists of Negroes and mulattoes, and the economy is commercial instead of agrarian. Guayaquil, the country's chief port, is the metropolis of this region. Commercial agriculture, petroleum, manufacturing, and trade are the principal occupations.

Politics is largely an activity of the cities. The two traditional parties are the Conservatives and the Liberals. The latter dominated the government, with the aid of the army, from the 1890's until 1956. These Liberal regimes were exceedingly unstable.

Two significant minority parties also existed during the latter part of the period of Liberal domination: the Socialists and the Communists.

In 1952 a new phase opened in Ecuadorian politics. By that time the old parties, particularly the Liberals, had begun to disintegrate, largely because they treated politics too much as a game and made little effort to cater to the discontent in the cities and along the coast.

A large group of independent voters broke away from the existing parties to support the candidacy of Dr. José Velasco Ibarra in 1952. He had been twice president and twice deposed. He was an Independent Liberal who had flirted with the Socialists, the Communists, and then the Fascists.

Velasco Ibarra governed with the help of the Conservatives and his support for the candidacy of Camilo Ponce Henríquez, the nominee of the Conservatives in the 1956 elections, was obvious. The victory of Ponce Henríquez was the first triumph of the Conservatives in half a century and there was much fear on the part of Liberals, Socialists, and others that he would preside over a dictatorial regime. However, by 1958, President Ponce Henríquez had comported himself in democratic fashion.

The three administrations since 1948 made no fundamental changes in the social and economic structure of the country—the revolution is still to come to Ecuador.

Paraguay

Paraguay, a land-locked nation in the heart of the South American continent, and populated by mixed-blood descendants of the native Guaraní Indians and their Spanish conquerors, is economically one of the least advanced Latin American countries. Its government since 1954 has been in the hands of General Alfredo Stroessner, the most recent of a series of dictators who have dominated the nation since the Chaco War with Bolivia in the 1930's. His government, put in power by a military coup d'état in May, 1954, is based on the bayonets of the Army and the support of the traditional Colorado Party. President Stroessner's hold was confirmed in July, 1954, by an "election" in which he was the only candidate. Four years later he was "re-elected" in a similar type of contest.

The Stroessner government does not allow any public opposition. However, like its predecessors, it has proceeded with the steady but unspectacular process of social change and economic diversification and development begun soon after the Chaco conflict.

Although in recent years a certain degree of social and economic progress has been made in Paraguay, its fundamental political problem, domination of the Army over political affairs, still remains. This is a heritage of Paraguay's history, and it still appears a long way from solution.

The nation was first colonized by Jesuit priests early in the Seventeenth Century. They presided over a unique theocratic experiment in which they Christianized, educated, and ruled the native Guaraní for one hundred fifty years, until their Order was thrown out of Spanish America by the king in the middle of the Eighteenth Century.

Paraguay achieved independence in 1811.

The War of the Triple Alliance from 1865 to 1870, which saw Paraguay fighting Argentina, Brazil, and Uruguay, resulted in the slaying of virtually all the country's adult males. Three generations were not enough for Paraguay to recover from this struggle.

The first three decades of the present century were a period of relative prosperity and civilian rule. However, in 1932 Paraguay entered another disastrous conflict, the Chaco War with Bolivia, which lasted for over three years, and the results of which are still being felt.

Although Paraguay "won" the Chaco War, it engendered among the enlisted men and junior officers a widespread desire for radical change. A revolution in February, 1936, led by Colonel Rafael Franco, proclaimed a "Socialist" regime for the country, and although the Franco government lasted only a year and a half, the economic and social changes it initiated, such as an agrarian reform and attempts to diversify the economy, still continue.

All Paraguayan presidents since 1940 have been nominally members of the Colorado Party, the nation's traditional conservative party. There have been sizable groups of members of the outlawed Liberal, Febrerista, and Communist parties in exile in neighboring countries, who have made several unsuccessful revolutionary attempts, including a month-long civil war in 1947.

Since the administration of President Chaves, a labor movement, closely associated with the Colorado Party, has been tolerated. However, it remains weak, because of the undeveloped state of the economy, and the dictatorial nature of the government.

The social reforms started by the Franco regime in 1936-37 have continued, with only slight interruptions. Several thousand small farmers have been given land under the agrarian reform program. More than two hundred thousand acres of additional land have been brought into cultivation, and with the help of the United States foreign aid program an agricultural experiment and extension service has been organized.

Social security legislation has been enacted, and in recent years collective bargaining has been extended. At the same time the country has experienced a moderate degree of industrialization, though it remains predominantly an agricultural and grazing nation.

In spite of this progress, the country's principal problem remains politico-military. Since the Chaco War, each president has owed his office to a military revolt. The

Army leaders, in conjunction since 1940 with the leaders of the Colorado Party, have ruled the country. Although the forms of a democratic, republican government have been maintained, its essence has been missing.

Peru

Peru is one of the countries in which, until very recently, the traditional economy and society has been most firmly entrenched, and in which military dictatorship was virtually endemic. However, since the election of Dr. Manuel Prado as President in June, 1956, the country has been undergoing an experiment in democracy which, if successful, presages the beginning of a fundamental transformation in the country's social structure. The supporters of President Prado, including the members of the majority party, the Apristas, tend to look upon his regime as a "caretaker" government, to pave the way for the 1961 election which the Apristas hope to win.

Economically, socially, and politically Peru is divided virtually into three nations. Along the coast the population is of mixed blood, part Indian, part white, and part Negro, with strong minorities of each of these races. Commercial agriculture flourishes there, and the oil industry is located in a desert region along the North Coast, while manufacturing predominates in Lima and its vicinity. In the valleys of the Andes, agriculture cultivated under semi-feudal forms of tenure predominates, although there are beginnings of manufacturing in some of the major towns, and a rich mining industry flourishes in the center of the country. Finally, on the Eastern side of the Andes, there is a forest area, much of which is inhabited by primitive Indians, but some of which provides appreciable amounts of rubber and other tropical products.

Politics has been dominated traditionally by an alliance of the rural and commercial aristocracy and the armed forces. The Indians, who make up more than half the population, play little part in political life and have fought a losing battle to keep their land, language, and customs. Most work as sharecroppers on holdings of large landowners, though increasing numbers have streamed into the cities in recent decades.

Since 1930 there has existed a political party which has challenged the status quo: the Aprista Party. It arose from a student movement for university reform and social change during the First World War. The student leaders were deported, but upon the fall of the dictatorship of President Leguia in 1930, they returned

and organized the Aprista Party. This group, urging incorporation of the Indian into civic and political life, was moderately nationalist and found its principal support among younger intellectuals and the urban working class.

Although the Apristas soon showed they were the country's majority party, the party was illegal most of the time until 1945. The ruling economic and social groups feared the revolutionary program of the party, and supported a series of dictatorships, most of them military, to keep it out of power. Forced to hold honest elections in the wake of World War II, President Manuel Prado finally legalized the Aprista Party, which promptly won a majority in the Senate, came near it in the Chamber of Deputies, and saw the candidate is supported, José Bustamante, win as President.

For three years Peru enjoyed democratic government, but in October, 1948, this ended with an Army coup and another military dictatorship, that of General Manuel Odría, who ruled until 1956. The oppressiveness of the Odría dictatorship, and general world developments, convinced an important segment of the economic aristocracy that the changes advocated by the Apristas were bound to come sooner or later, and that it would be better for them to come in a democratic manner through an Aprista regime, than violently, as had occurred in neighboring Bolivia. This group was led by former President Manuel Prado, who sought and received the support of the still illegal Aprista Party in elections which a split in the Army forced President Odría to call.

Prado won, with the support of the Apristas, and immediately fulfilled his campaign promise to legalize the party once again. Since 1956, Prado has been presiding over an uneasy regime which has guaranteed civil liberties, but has been beset with serious economic and social problems. The fate of his administration will test whether social change can come to Peru peacefully or democratically, or whether the country is likely to face a violent and perhaps bloody upheaval.

Uruguay

Uruguay, one of the consistently democratic nations of Latin America, has been developing an economic, social, and political crisis of first magnitude. No political leader has faced up to the implications of this crisis which may endanger the tradition of democratic government Uruguay has enjoyed for two generations.

A small country, with less than 3,000,000 people, Uruguay was until the depression

largely a grazing nation. It grew wool and meat for export, and with the income thus earned imported manufactured goods, grains, and other products.

The depression stimulated the growth of manufacturing, as did World War II. Unable to obtain from abroad the industrial goods they needed, the Uruguayans began to produce many of them themselves. These industries produced goods at high cost and the government resorted to high tariffs to protect them. The rise of industry in Montevideo led to its rapid growth until it now contains one-third of the country's population.

Another aspect of the growing crisis is the state of the social security system. Uruguay early led the hemisphere in this field. However, by the 1950's excessively early retirement ages and other exaggerated provisions of the social security system made it onerously costly. Meanwhile, government employment had expanded to the point that one-third of the inhabitants of Montevideo were government workers.

Economic and social difficulties of Uruguay have been complicated by political confusion and evasion of responsibility by party leaders. In 1947, the country adopted a collegiate executive, with a nine-member Executive Council in place of the president. Membership in the Council was divided between six of the majority party and three of the minority. There has been a great deal of discontent with this system.

Political opinion in Uruguay is roughly divided between the Colorado Party and the Nationalist Blanco Party. Generally speaking, the Colorados represent the Left, the Blancos the Right.

Since 1904 the country has been dominated by that part of the Colorado party loyal to José Batlle y Ordóñez, father of Uruguayan's advanced social and labor legislation and the man who started the country's tradition of political democracy. Batlle's own followers are now divided into two bitterly opposed groups. They are faced with as big a challenge in maintaining Uruguayan democracy as their great forebear had in establishing it.

Venezuela

Venezuela during 1958 was preoccupied with re-establishing democratic government, and with the prospect of an economic crisis. Its long tradition of military dictatorship made the first problem particularly difficult, while excessive dependence on petroleum exports, which normally provide 95% of the foreign exchange earned by the country's economy, complicated the second.

Virtually since independence, Venezuela has been governed by military dictators. One of the most notorious, Juan Vicente Gómez, governed for a quarter of a century, during which the oil boom began, and died in bed in December, 1935. For thirteen years thereafter, the country progressed towards political democracy. Between 1945 and 1948 the government was in the hands of the country's majority party, Acción Democrática. A beginning was made towards diversifying the economy and reducing the nation's dependence on oil.

In November, 1948, the Acción Democrática government was overthrown by an army coup d'état, whose chief author was Colonel Marcos Pérez Jiménez. In 1952 the military regime called elections which were relatively free, although Acción Democrática, by then illegal, was not allowed to participate. When election returns ran strongly against the regime, counting of ballots was suspended; Colonel Pérez Jiménez declared himself provisional president, and announced that he had "won" the election. Two months later Pérez Jiménez was declared "constitutional president."

The Pérez Jiménez dictatorship equalled any in Venezuelan history for brutality and corruption. The regime maintained a concentration camp in the torrid jungles of the Orinoco River Valley. Leaders of Acción Democrática were shot down in the streets of Caracas; there was no freedom of speech or press, and corruption was so extensive that *The New York Times* reported in January, 1958, that Pérez Jiménez personally pocketed \$230,000,000.

The Pérez Jiménez regime was a period of large income for Venezuela, owing to the oil boom which converted the nation into the world's largest exporter and second largest producer of petroleum.

Pérez Jiménez was overthrown on January 23, 1958, by a civilian uprising, marked by a general strike-lockout throughout the nation, denunciation of the government from the pulpit, and bloody riots in Caracas and other cities by civilians armed with stones and broken bottles.

The administration was placed in the hands of a five-man government junta, consisting of a representative of each of the branches of the armed forces, and two civilians chosen from among the principal leaders of the business community. This administration announced that its principal job was to call democratic elections.

The junta faced its first serious crisis at the time of the visit of United States Vice President Nixon to Venezuela in May, 1958. The severe rioting at that time showed that political tempers were run-

ning high, and that there was widespread resentment against the United States because of the support it had seemed to extend to the Pérez Jiménez dictatorship. Although the leaders of the three major Venezuelan parties strongly condemned the rioting, it brought to a head differences of opinion within the junta, and a few days after Mr. Nixon's visit, the original civilian members of the junta resigned and were replaced by other important businessmen.

The largest party is Acción Democrática, a left-of-center group, led by Rómulo Betancourt and established in 1941, which is socialistic and moderate nationalist in ideology. Its leaders include some of the country's outstanding intellectuals, and its particular strength is among the urban workers and the peasants.

The second party in importance is the Christian Social party, Copel. This group, established under the leadership of Dr. Rafael Caldera early in 1946, has close connections with the Catholic Church.

After January 23, 1958, a new political party was formed, Integración Republicana. This is led by business and professional people who participated in the final move to overthrow the dictatorship. It seems destined never to be a mass party, but may have considerable influence.

At the end of May, 1958, the junta established a Consultative Assembly, in which all the parties were represented. The purpose of the Assembly was to serve as an interim Congress until elections scheduled for the end of 1958.

All political parties have a stake in the success of the provisional government in meeting the nation's economic problems. An economic crisis might well frustrate the junta's efforts to hold elections to restore democratic civilian government.

The provisional government put into execution an emergency economic plan of public works designed to absorb most of the 100,000 unemployed left by the Pérez Jiménez regime. At the same time the government's Venezuelan Development Corporation began a program to bolster some of the weaker elements in the nation's economy, and to plan for a broader economy, less subject to the vagaries of the oil business. The corporation began extending loans to industries such as textiles which needed new equipment in order to improve efficiency and productivity.

CENTRAL AMERICA

THERE ARE six countries in what is generally called Central America, stretching from the southern border of Mexico to the northern frontier of Colombia. They

vary widely, but the northerly five countries are moving toward economic and ultimately political union through the Organization of Central American States established in the early 1950's.

Guatemala, El Salvador, Honduras, Nicaragua, and Costa Rica are the five countries participating in the Organization of Central American States. Agreements providing for coordinated development of industries in the various countries and accords have been reached for the gradual introduction of a customs union. Many predict that successful economic union may result in the re-establishment of the Republic of Central America, which existed for fifteen years after 1821 when Central America achieved its independence from Spain, but which foundered on the rivalries among the different sections of the peninsula.

Costa Rica

Costa Rica is the one Central American country with a long tradition of democracy. It is a country of predominantly small farmers producing coffee for export and food crops largely for local consumption. Since independence, the country has generally selected its chief executives by elections instead of coups d'état. Only twice in the present century have there been forceful overthrows of the government. The second time was in 1948 when the incumbent regime attempted to prevent its elected successor from taking office. This revolution was led by José Figueres, a well-to-do farmer and engineer.

The 1948 revolution opened a new phase of Costa Rican political and economic development. The revolutionary junta led by Figueres nationalized the banking system, enacted a capital levy, and presided over the writing of a new constitution.

In 1953 José Figueres was elected president. His constitutional government stepped up economic development and public housing. In March, 1958, President Figueres presided over new elections, in which the candidate of his Partido Liberación Nacional was defeated and Mario Echandi, a strong opponent of Figueres, was elected President of the Republic. He took office early in May.

El Salvador

Neighboring El Salvador is one of the most thickly populated countries of the Western Hemisphere. The principal occupation of its residents is growing some of the finest coffee produced in America. Most of the land is held by a few score

wealthy families, while workers who cultivate these landholdings are generally very poor. There are beginnings of manufacturing in San Salvador, the capital, and one or two other towns.

Since 1948 the country has been undergoing a moderate social revolution, under the leadership of young army officers and professional men. This has brought programs of irrigation and the settlement of small farmers on reclaimed land, construction of hydroelectric schemes, enactment of labor and social security legislation, the growth of a labor movement, and relative freedom of speech. As yet there are no well-defined political parties, although the government has maintained the Partido Unión Revolucionaria as its principal political vehicle. This was the group which successfully backed Colonel Osorio for president in elections in 1949 and Colonel José Lemus six years later.

Guatemala

Bordering on Mexico is Guatemala, where the majority of the population is Indian and lives as it has for four centuries. The Indians speak their own languages, worship pagan gods, and live on land owned by the descendants of their conquerors. The city population—the so-called “ladinos”—usually have the blood of both races.

Between 1944 and 1954 Guatemala experienced a profound revolutionary movement. The governments during that period sought to diversify the economy and end its excessive dependence on the export of coffee and bananas.

The revolutionary governments also brought significant social changes, encouraging the growth of the labor movement, establishing a labor code and a social security system and undertaking an agrarian reform. They governed more or less democratically.

The downfall of the Guatemalan revolution came from the failure of the revolutionaries to distinguish between their own nationalistic, socially oriented movement and communism, and the consequent ability of the Communists to seize the leadership of the revolution. As a result, the government of President Jacobo Arbenz was overthrown by an armed invasion by Colonel Carlos Castillo Armas who ruled from July, 1954, until he was assassinated three years later. After six months of confusion following Castillo Armas' murder, General Ydigoras Fuentes, reputedly an extreme conservative, was finally elected President early in 1958 and took office soon afterwards.

Honduras

Honduras is the most backward of the Central American countries. Its principal product is bananas, grown on the north coast by the United and Standard Fruit Companies. Most of its people are farmers or grazers, though Tegucigalpa, San Pedro Sula, and other cities and towns are becoming centers of light manufacturing. Much of the country is unconnected by railroads or highways and considerable parts of it are virtually uninhabited.

Until 1948 Honduras was governed by a strict military dictatorship, under General Tiburcio Carías Andino. A military junta presided over new elections for a constitutional assembly in 1957, which were won by the Liberal Party. The Liberal-controlled assembly elected the party's leader Ramon Villeda Morales as president of the republic as its final act. Thus Honduras had its first popularly elected government in many decades.

Nicaragua

Nicaragua has been under control of a military dictatorship since 1936. In that year, General Anastasio Somoza, commander of the National Guard, which had been organized during the United States occupation of the country during and after World War I, seized power. He or members of his family have been in power ever since. Their regime has ostensibly been a government of the Liberal Party, though in fact it has been a personal dictatorship.

Under the Somozas, the country has experienced considerable economic development. Its agriculture has been diversified, a network of roads has been constructed, manufacturing has begun to appear in several cities. One characteristic of all of this development has been that the Somoza family has participated in and benefited from virtually all of it.

In 1956 President Anastasio Somoza was assassinated, and his post was taken by his son, Luis, hitherto president of Congress. Another son, Anastasio Jr., was commander of the National Guard. Under Luis Somoza, the stringency of the dictatorship was relaxed and some advance towards the development of political democracy took place.

Panamá

Panamá is dominated by the Canal Zone, which runs through its center. The country achieved its independence from Colombia in 1903 with the help of the United States, anxious to build the canal. A treaty for the “big ditch” was soon signed and since then the economy of the country has centered on the canal.

WEST INDIES

Cuba

For twenty-five years Fulgencio Batista has dominated Cuban public life. Chief executive during ten years of this period, he has been the power behind the scenes during most of the rest of the time. Since 1952, he has ruled the island republic with a dictatorial regime which in the beginning was mild. However, in November, 1956, a group of anti-Batista rebels, led by a young lawyer, Fidel Castro, began an insurrection in the Sierra Maestra mountains at the eastern end of the island, and since that time Batista's rule has been increasingly harsh.

The mixed Negro and white population of Cuba received its independence in 1902 as a result of the Spanish-American War of 1898, and since then its political history has been an erratic one. During the last third of a century all but eight years have been spent under a dictatorship.

During much of this time the island's political history has been closely connected with ups and downs of its economy. Cuba has what is fundamentally a sugar economy. It is the world's largest exporter of sugar, though in recent years tourism has also become a major factor in its economy, and grazing, truck gardening, mining, and manufacturing have become increasingly important.

During World War I the sugar industry boomed. Subsequently the price and demand for sugar declined, bringing a political crisis. President Gerardo Machado, elected in 1924, established a dictatorship, the sordid reputation of which still survives. Machado was ousted by a general strike in September, 1933, and for three months the country was ruled by a nationalistic, socially-minded regime headed by Dr. Ramón Grau San Martín and backed by the army, now led by ex-sergeant Fulgencio Batista, who had helped to overthrow Machado.

In 1934, when Grau San Martín's government failed to gain recognition from the United States, Colonel Batista overthrew him and for the next ten years, Batista dominated the Cuban government. Until 1940 he made and unmade presidents at will, but in that year had himself elected president.

In 1944 President Batista presided over elections which were won by his worst enemy, Dr. Grau San Martín. Batista gained himself a niche in Cuban history when he allowed Grau to take office. During the next eight years the government was dominated by Grau San Martín's

Auténtico Party. Although these years were marked by extensive corruption, they were perhaps the most democratic period in Cuban history.

In June, 1952, a new election was scheduled. There were three candidates—Carlos Hevia of the Auténtico Party; Roberto Agramonte of the new Ortodoxo Party; and the now General Fulgencio Batista. The race was between Hevia and Agramonte, and Batista had no chance of winning, so, on March 10, Batista led a revolt with the help of sympathetic junior officers of the army.

Since March 10, 1952, Batista has dominated Cuba. He was elected president in 1954 in a poll in which he had no opposition. For the first four and a half years after March, 1952, the Batista dictatorship was a mild one. However, with the landing of rebels in Oriente Province late in 1956, the regime became more oppressive.

The opposition to Batista is sharply divided. The followers of both Ramón Grau San Martín and Carlos Prío Socarras maintain groups they call Partido Auténtico, though they are bitterly opposed to one another. The followers of Fidel Castro, head of the rebels of Oriente Province, maintain the "25th of July Movement," which is not on friendly terms with either Auténtico group.

Economically, Batista has been fortunate. Although the price of sugar fell off soon after Batista took power, it recovered in later years and the country prospered in spite of political discontent. However, neither Batista nor any of his predecessors had done much to diversify the nation's economy, which still remained dependent on the vagaries of the sugar market.

Dominican Republic

The Dominican Republic has probably the world's most absolute dictatorship. Since 1930 the country has been under the dominion of Rafael Leonidas Trujillo, who began political life as an officer in the National Guard established under occupation by the United States during and after World War I. Shortly after withdrawal of United States troops, Trujillo ousted the elected president and seized control. Since that time he has either been chief executive or has controlled the person who was.

Trujillo has evolved a unique type of personal dictatorship. He allows only one political party, the Partido Dominicano, of which he is the undisputed chief. The constitution has been rewritten so that when any elected government official resigns, the leader of the party to which that person belongs names his successor. Trujillo takes the precaution to obtain the

undated resignation of all people elected on the Partido Dominicano ticket, and he sends it in to the appropriate official whenever he sees fit.

Thus an essential element in the Trujillo system is rapid alternation in office among those dependent upon him. No one is allowed to dig himself in long enough to build up patronage and other perquisites of office which might conceivably make him a serious danger to the dictator. The results of this are sometimes ludicrous. Congressmen and other officials learn about their "resignations" by reading of them in the newspapers.

These devices are supplemented by complete control over the armed forces and by an exceedingly efficient secret police. This fearsome body works not only in the Dominican Republic itself but in other countries as well. Enemies of Trujillo have been murdered or have disappeared in Cuba, Mexico, Haiti, and the United States.

In 1956 the activities of Trujillo's secret police received particular attention when a Basque exile who formerly lived in the Dominican Republic, Dr. Jesus de Galindez, disappeared from the streets of New York under mysterious conditions. Several months later an American pilot employed by the Dominican Airlines mysteriously disappeared in the Dominican Republic and students of the case linked his disappearance with that of Galindez. *Life* magazine, among others, asserted that Gerald Murphy, the American pilot, had flown Galindez, kidnaped by Trujillo agents, from New York to the Dominican Republic, and had himself been eliminated when he began to talk too much about the incident.

There has been no freedom of press or speech under Trujillo, and there have been no opposition political parties allowed. The only exception to this latter statement was in 1946-47 when Trujillo desired to give an appearance of "democracy" in having himself re-elected. For a short while he allowed the Communists, under the name Partido Socialista Popular, to function openly. However, before the election was actually held, Trujillo sent most of his Communist friends into exile.

Nepotism has reigned under Trujillo. In 1952 he made his brother, Hector, president of the republic. His elder son was a general before he was of school age. Horse races at the National Stadium in which a Trujillo horse is entered must be won by that horse or the Stadium authorities and owners of other steeds will suffer.

Trujillo has sought to get rid of leaders of neighboring countries who were not to his liking. During 1957, the Costa Rican

authorities arrested two gunmen who admitted having been sent by the Dominican regime to assassinate President José Figueres.

Perhaps the only positive aspect of the Trujillo regime has been its economic policy. The Dominican Republic has been traditionally a sugar-exporting country. Trujillo has diversified the economy, encouraging other types of agriculture as well as grazing, stimulating moderate industrialization, and favoring the tourist trade. He has considerably extended means of transportation and communication.

It is generally believed that Trujillo is a silent partner in virtually every economic enterprise of any size in the country. No business can function without his approval and support.

Haiti

Haiti in recent years has continued its traditional pattern of alternating periods of dictatorship with shorter periods of chaos. The election of the present chief executive, President Francois Duvalier, late in 1957 put an end to one of the periods of chaos and inaugurated a new dictatorship, civilian in appearance but in fact resting upon the bayonets of the armed forces.

Haiti occupies the western third of the island of Hispaniola and is a unique country in many ways. It was the first Latin American nation to win its independence, as the result of a slave revolt in 1804. It is the one virtually all-Negro nation of the hemisphere. It is a country of small farmers, most of whom own and cultivate mere patches of land. It has the highest illiteracy rate, the deepest poverty, and one of the most meager endowments of natural resources of all the countries of the hemisphere. Yet its people have a dignity, pride, and feeling of self-assurance which is unusual in Latin America.

The country started its struggle for independence under Toussaint L'Ouverture at the time of the French Revolution in the 1790's. Although this first attempt was suppressed by Napoleon Bonaparte, a successful uprising led by Jean Jacques Dessalines in 1804 finally established Haiti as an independent nation.

The political turbulence, which in the first two decades of the present century brought occupation of the republic by United States Marines, had little real influence on the daily lives of the people. Small farmers, they continued to grow their infinitesimal amounts of coffee and corn, which the womenfolk brought to the local market on their heads. Close to the spirit of their African ancestors, they per-

severed in speaking their own peculiar language—a mixture of African dialects, French, Spanish, and English—and to worship their pagan gods, only slightly influenced by the teachings of the Catholic Church.

In December, 1945, a revolution put President Dumarsais Estimé in power. His regime was one of the few democratic episodes the country has experienced. There was freedom of press and speech, several political parties were organized, a labor movement was established, and a serious attempt was made to plan for the country's economic development. Rudimentary labor legislation was enacted and the foundations of a social security system were laid.

However, President Estimé's attempt to perpetuate himself in power after his term had expired in December, 1949, brought another revolution, the victor of which was General Paul Magloire, who ruled until December, 1956. His regime, a dictatorship, continued many of the social and economic policies of its predecessor. President Magloire, in turn, attempted to stay in office after his term had ended and was overthrown. From December, 1956, until September, 1957, when President Duvalier was installed, there was a period of chaos.

The outstanding figure during this period was Provisional President Daniel Fignolé, idol of the masses of Port-au-Prince, who during the Estimé period had organized a political party. When he was overthrown in 1957, he sought refuge in New York City, from whence he continued to direct the activities of his followers.

The overthrow of Fignolé by the army paved the way for the election of President Duvalier. His regime has attempted to restore some semblance of order to the nation's finances, but it depends upon the armed forces for its tenure in office. Stability and systematic growth have not yet come to Haiti's politics and economy.

Colonial West Indies

MANY of the islands in the West Indies and several areas on the adjacent mainland are still non-self-governing territories, under the sovereignty of three European powers and the United States. All of these areas have made considerable progress in the direction of self-government in recent years. Most of them have similar economic problems, as underdeveloped areas taking their first steps towards industrialization and diversification.

During the seventeenth and eighteenth centuries the various islands of the Carib-

bean and some of the mainland regions near them changed hands frequently among the European powers. Great Britain, France, Spain, the Netherlands, and even Sweden and Denmark participated in the struggle to control this valuable area lying athwart the Spanish Main. Most of the islands produced sugar, spices, or some other product much in demand in Europe, and cultivation of these commodities was the occasion for bringing in hundreds of thousands of Negro slaves from Africa, whose descendants make up most of the population of the region today.

During the first half of the nineteenth century slavery was abolished, the ex-slaves tended to wander off the plantations, and the region's brisk trade with Europe declined. Although some of the colonies—notably Trinidad, British Guiana, and Surinam—brought indentured servants from India and Indonesia to take the place of the emancipated slaves, most of the colonies' economies suffered a drastic decline, and by 1928 President Herbert Hoover quite rightly referred to the West Indian area as "America's poorhouse."

Suddenly in 1937 and 1938 the whole region seemed to awaken from a deep sleep, politically speaking, and there was an outbreak of revolt in the British colonies, followed soon afterwards by similar movements in the Dutch and United States dependencies.

Today the parts of the West Indies which are not independent fly the flags of four different countries—Great Britain, France, the Netherlands, and the United States. Each of these has had a somewhat different development since the late 1930's, but the trend in each case is similar.

British Areas

British holdings are most extensive. The upsurge of the late 1930's brought into existence in virtually all the British islands as well as in Great Britain's two mainland colonies, British Guiana and British Honduras, both trade union movements and political parties—usually with very close connections. The first leaders of these movements tended to be people of a demagogic stripe, of no particular ideological bent, who were capable of expressing the immediate grievances of the people of their colony.

Subsequently there arose a group of leaders and parties headed by people of greater intellectual distinction and more defined ideology, most of them socialists, and the original leaders have tended to become the conservative political force within their respective areas.

Two parties which have arisen in the British area are exceptions to these cate-

gories. One of these, the People's United Party of British Honduras, is a Catholic Social group, receiving advice from local Jesuit priests. Its hold on the colony's electorate has been demonstrated in two successive elections in the 1950's. The other party is the pro-Communist Peoples Progressive Party of British Guiana, led by Dr. Cheddi Jagan. It won control of the colonial government in June, 1953, only to be deposed by the governor four months later when he thought the PPP government had overstepped constitutional bounds. However, late in 1957, when constitutional government was restored, the PPP won again.

During the 1940's and early 1950's all of the British territories received a considerable degree of self-government, Trinidad, Barbados, and Jamaica being brought to the edge of independence. At the same time, negotiations among the territories and between them and Great Britain brought most of the colonies into a new West Indies Federation, to which Britain was committed to grant full independence. Only British Guiana and British Honduras, which did not desire to become part of the Federation, and the Bahamas, which still had a government of colonial aristocrats who did not want to associate their colony with its neighbors, controlled by darker-skinned people, stayed outside of the new nation-in-embryo.

All the new popularly-elected governments in the British colonies moved to develop their economies. Development corporations were established, diversification of agriculture was encouraged, and manufacturing industries were stimulated. However, the economy of the whole region continued to be dependent principally on the export of a narrow range of raw materials or foodstuffs.

Dutch

The Dutch colonial areas in America have also developed towards self-government and a more diversified economy. The first steps in the direction of the former were taken during the Second World War when the islands of Dutch West Indies and the mainland colony of Surinam, along with the Netherlands and Dutch East Indies, were declared equal partners in the Dutch Empire. Subsequently, both the Dutch West Indies and Surinam have been given virtually complete internal self-government. In both areas, the popularly elected governments have stimulated economic development.

French

The French colonial areas in the Caribbean area have developed in a different

direction. The islands of Martinique and Guadeloupe and the mainland colony of French Guiana (once the home of Devil's Island) are regarded as integral parts of France and as such have representation in the French National Assembly. They also enjoy a considerable degree of internal self-government.

U. S.: Puerto Rico—Virgin Islands

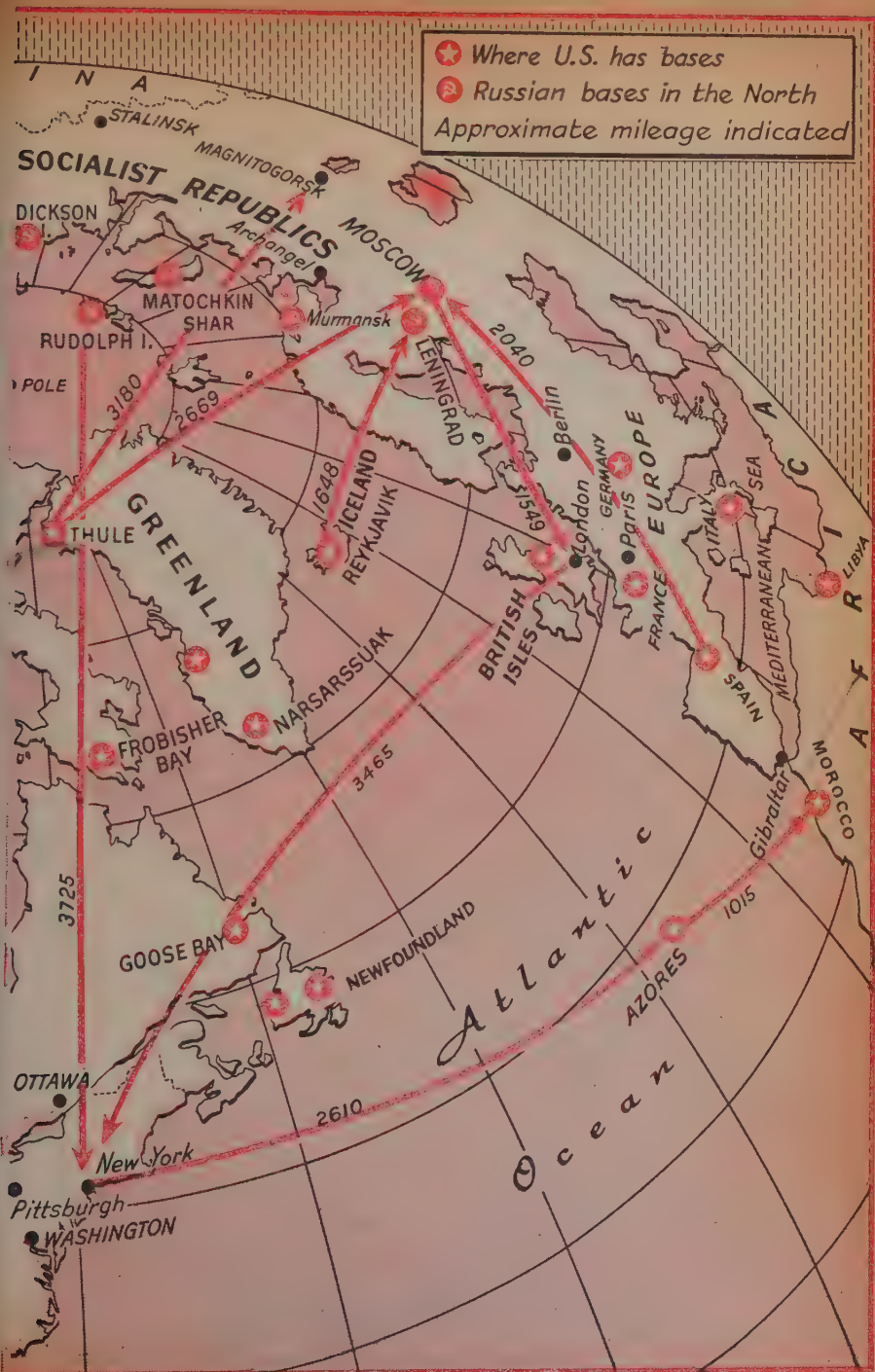
The principal United States dependencies in the West Indies are Puerto Rico, acquired as a result of the Spanish-American War of 1898, and the Virgin Islands, bought from Denmark in 1917. They have both experienced a great deal of progress during the last quarter of a century.

Puerto Rico was very poor, almost completely dependent on the export of sugar, and enjoyed only limited self-government in 1940. In the election of that year, Luiz Muñoz Marín's new Popular Democratic Party won control of the local legislature. It started a program of economic development which in the last eighteen years has established an island-wide electric power network; has greatly diversified agriculture, reducing the area devoted to sugar production, while increasing total output—the land thus saved being devoted to pineapples, fruits, grazing, and other types of production. At the same time, "operation bootstrap" has brought more than 400 new manufacturing establishments to the island.

While stimulating economic development, the Popular Democrats have also evolved a new relationship with the mainland. In 1947 they convinced Congress to allow the election of the governor by the people of the island, and Muñoz Marín became the first elected governor the following year. Four years later, Congress allowed the island to write its own constitution, which laid down the lines of a Commonwealth "freely associated" with the United States. It has almost complete internal self-government. Presidents Truman and Eisenhower have said that the moment the Puerto Ricans decide they want independence they can have it.

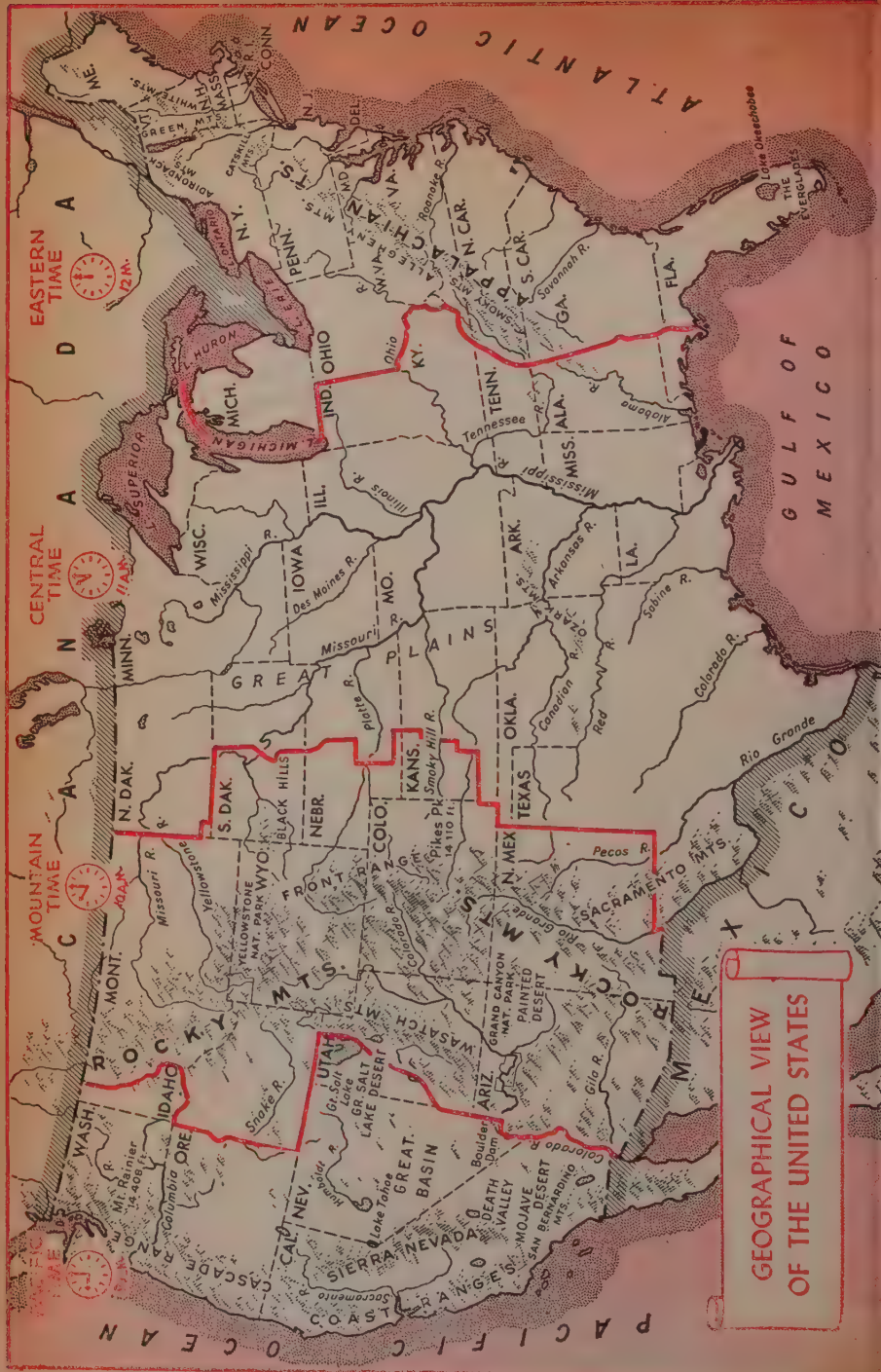
The American Virgin Islands have also made some progress towards a sounder economy and a greater degree of self-rule. During the New Deal, new industries under government ownership or encouragement were established. Since World War II there has been a considerable expansion in tourist trade. The islands have an elected legislature, though the governor and some other important officials are still appointed from Washington. In recent years there has been some agitation among the Virgin Islanders for a status similar to that of Puerto Rico.











GEOGRAPHICAL VIEW
OF THE UNITED STATES

CANADA ALASKA & GREENLAND

POLAR ICE

Arctic Ocean

**RADAR
WARNING LINES**

DEW LINE

MID-CANADA LINE

PINETREE LINE

Atlantic

NORTHWEST TERRITORIES

ALBERTA

MANITOBA

SASKATCHEWAN

ONTARIO

QUEBEC

NEW BRUNSWICK

NOVA SCOTIA

PRINCE EDWARD I.

NEWFOUNDLAND

GREENLAND

DEVON I.

ELIZABETH I.

QUEEN I.

U.S.S.R.
ST. LAWRENCE I.
Bering Sea

ALASKA
Nome
Fairbanks
Anchorage
Seward
Kobuk I.
MT. MCKINLEY - 20,269
Umat
Tanana
Yukon
Mackenzie
Dawson
Klanika
Norman Wells
Whitehorse
Yukon
MT. LOGAN - 19,850
ALASKA HIGHWAY

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Port Radium

Pacific Ocean

British Columbia

Alberta

Manitoba

Saskatchewan

Ontario

Quebec

New Brunswick

Nova Scotia

Prince Edward I.

Newfoundland

Greenland



0 Miles 400
DEW LINE = DISTANT
EARLY WARNING LINE





U.S.S.R.



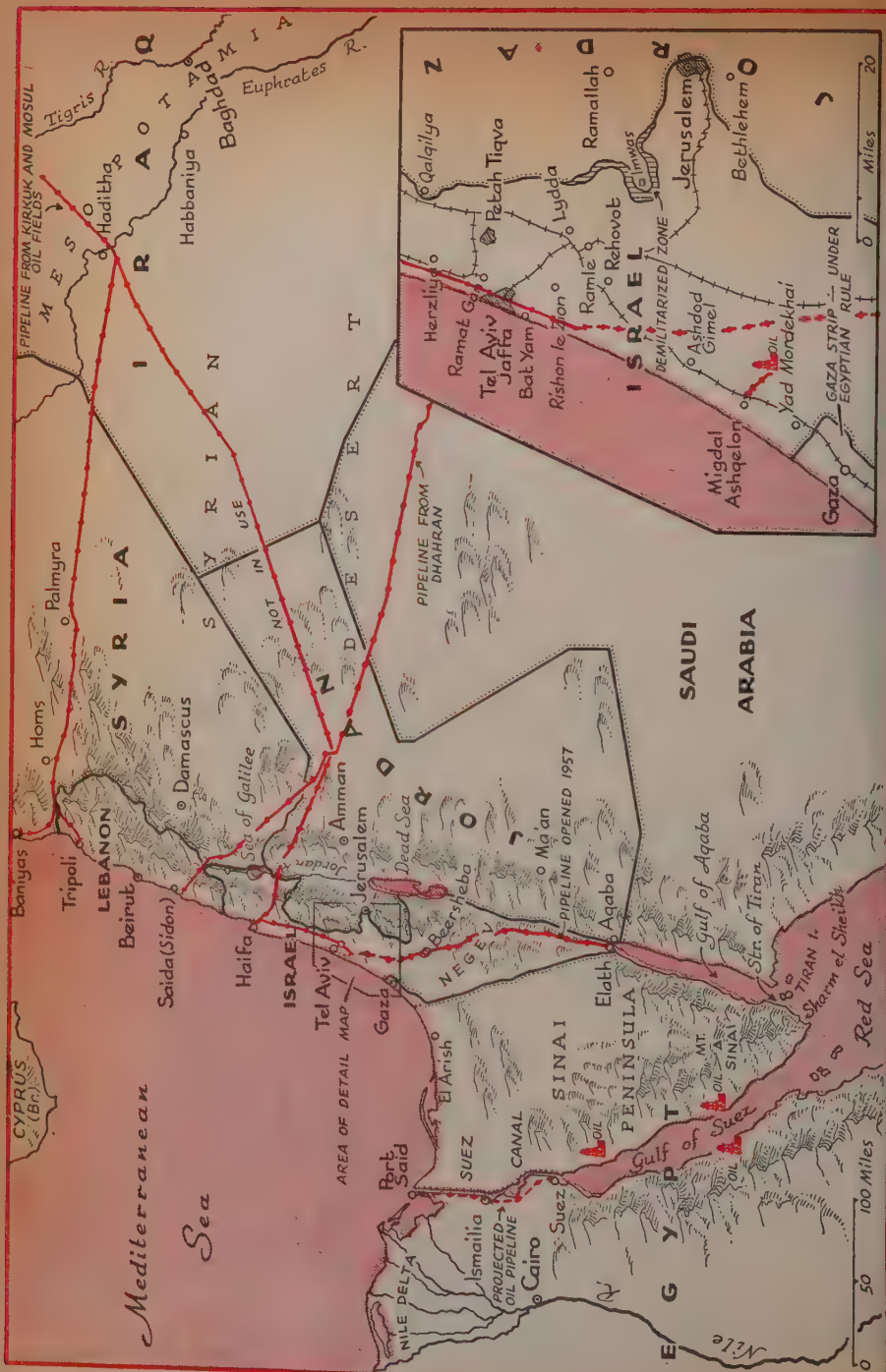


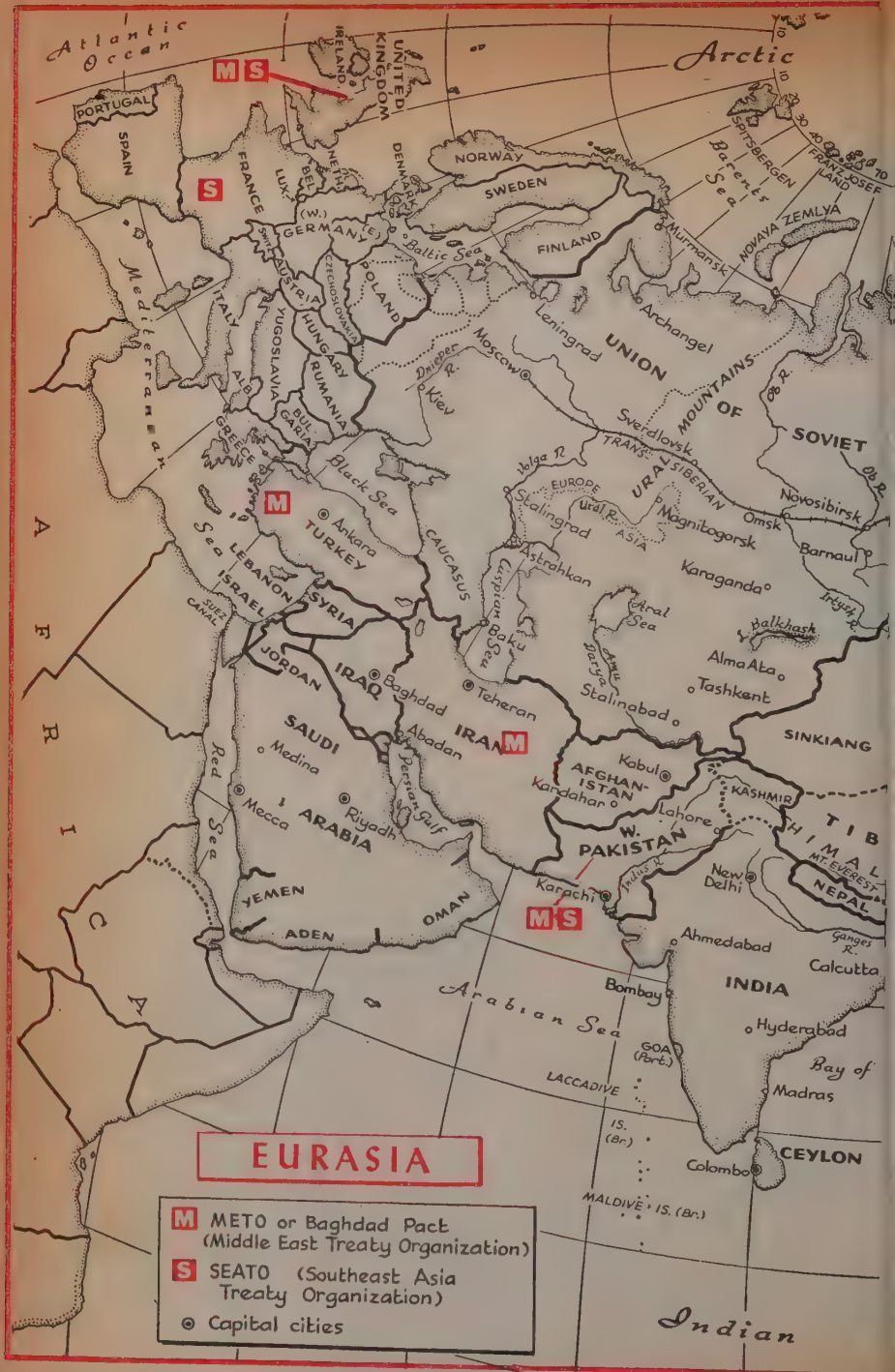


EUROPE AND NEAR EAST

- Communist bloc
- Capital cities









SOUTH AMERICA

0 Miles 1000



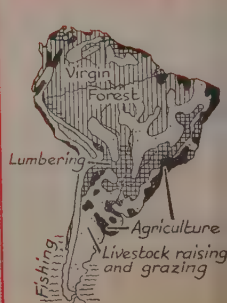
CLIMATE



POPULATION



OCCUPATIONS



CENTRAL AMERICA AND THE WEST INDIES

● Capitals

0 1000 Miles

Atlantic Ocean



BRITISH ISLES





The Cairo Conference

Important provisions of the Conference, which was held Nov. 22-26, 1943:

The several military missions have agreed upon future military operations against Japan. The Three Great Allies expressed their resolve to bring unrelenting pressure against their brutal enemies by sea, land, and air. This pressure is already rising.

The Three Great Allies are fighting this war to restrain and punish the aggression of Japan. They covet no gain for themselves and have no thought of territorial expansion. It is their purpose that Japan shall be stripped of all the islands in the Pacific which she has seized or occupied since the beginning of the first World War

in 1914, and that all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China. Japan will also be expelled from all other territories which she has taken by violence and greed. The aforesaid Three Great Powers, mindful of the enslavement of the people of Korea, are determined that in due course Korea shall become free and independent.

With these objectives in view the three Allies, in harmony with those of the United Nations at war with Japan, will continue to persevere in the serious and prolonged operations necessary to procure the unconditional surrender of Japan.

The Teheran Conference

(Nov. 28-Dec. 1, 1943)

The President of the United States of America, the Premier of the Union of Soviet Socialist Republics, and the Prime Minister of the United Kingdom, have consulted with each other and with the Prime Minister of Iran, desire to declare the mutual agreement of their three Governments regarding relations with Iran.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom recognize the assistance which Iran has given in the prosecution of the war against the common enemy, particularly by facilitating transportation of supplies from overseas to the Soviet Union. The three Governments realize that the war has caused special economic difficulties for Iran and they are agreed that they will continue to make available to the Government of Iran such economic assistance as may be possible, having regard to the heavy demands made upon them by their worldwide military operations and to the worldwide shortage of transport, raw materials and supplies for civilian consumption.

With respect to the post-war period, the Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are in accord with the Government of Iran that any economic problem confronting Iran at the close of hostilities should receive full consideration along with those of the other members of the United Nations by conferences or international agencies held or created to deal with international economic matters.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are at one with the Government of Iran in their desire for the maintenance of the independence, sovereignty and territorial integrity of Iran. They count upon the participation of Iran together with all other peace-loving nations in the establishment of international peace, security and prosperity after the war in accordance with the principles of the Atlantic Charter, to which all four governments have continued to subscribe.

The Yalta Conference

Important provisions of the Conference, which was held Feb. 4-11, 1945:

The Occupation and Control of Germany

We have agreed on common policies and plans for enforcing the unconditional surrender terms which we shall impose together on Nazi Germany after German armed resistance has been finally crushed. These terms will not be made known until the final defeat of Germany has been accomplished. Under the agreed plan, the forces of the three powers will each occupy a separate zone of Germany. Coordinated administration and control has been provided for under the plan through a central Control Commission, consisting of

the supreme commanders of the three powers, with headquarters in Berlin. It has been agreed that France should be invited by the three powers, if she should so desire, to take over a zone of occupation, and to participate as a fourth member of the Control Commission. The limits of the French zone will be agreed upon by the four Governments concerned through their representatives on the European Advisory Commission.

It is our inflexible purpose to destroy German militarism and nazism and to ensure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all

German armed forces; break up for all time the German General Staff that has repeatedly contrived the resurgence of German militarism; remove or destroy all German military equipment; eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment and exact reparation in kind for the destruction wrought by the Germans; wipe out the Nazi Party, Nazi laws, organizations, and institutions, remove all Nazi and militarist influences from public office and from the cultural and economic life of the German people; and take in harmony such other measures in Germany as may be necessary to the future peace and safety of the world. It is not our purpose to destroy the people of Germany, but only when nazism and militarism have been extirpated will there be hope for a decent life for Germans, and a place for them in the comity of nations.

Terms Under Which Russia Entered the War Against Japan

The leaders of the Three Great Powers—the Soviet Union, the United States of America and Great Britain—have agreed that in two or three months after Germany has surrendered and the war in Europe has terminated the Soviet Union shall enter into the war against Japan on the side of the Allies on condition that:

1. The status quo in Outer Mongolia (The Mongolian People's Republic) shall be preserved;
2. The former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored, viz.:

The Potsdam Declaration

Text of the declaration issued at Potsdam, Germany, July 26, 1945, outlining the terms under which Japan would be allowed to surrender:

1. We, the President of the United States, the President of the national government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agreed that Japan shall be given the opportunity to end this war.
2. The prodigious land, sea, and air forces of the United States, the British Empire and China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blow at Japan. This military power is sustained and inspired by the determination of all allied nations to prosecute the war against Japan until she ceases to resist.
3. The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.

(a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union,

(b) the commercial port of Dairen shall be internationalized, the preeminent interests of the Soviet Union in this port being safeguarded and the lease of Port Arthur as a naval base of the U.S.S.R. restored,

(c) the Chinese-Eastern Railroad and the South-Manchurian Railroad which provides an outlet to Dairen shall be jointly operated by the establishment of a joint Soviet-Chinese Company, it being understood that the preeminent interests of the Soviet Union shall be safeguarded and that China shall retain full sovereignty in Manchuria;

3. The Kurile Islands shall be handed over to the Soviet Union.

It is understood that the agreement concerning Outer Mongolia and the ports and railroads referred to above will require concurrence of Generalissimo Chiang Kai-shek. The President will take measures in order to obtain this concurrence on advice from Marshal Stalin.

The Heads of the Three Great Powers have agreed that these claims of the Soviet Union shall be unquestionably fulfilled after Japan has been defeated.

For its part the Soviet Union expresses its readiness to conclude with the National Government of China a pact of friendship and alliance between the U.S.S.R. and China in order to render assistance to China with its armed forces for the purpose of liberating China from the Japanese yoke.

The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the land, the industry, and the method of life of the whole German people.

The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.

4. The time has come for Japan to decide whether she will continue to be controlled by these self-willed militaristic advisers whose unintelligent calculations have brought the empire of Japan to the threshold of annihilation, or whether she will follow the path of reason.

5. The following are our terms: we will not deviate from them; there are no alternatives; we shall brook no delay.

6. There must be eliminated for all time the authority and influence of those

who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security, and justice will be impossible until irresponsible militarism is driven from the world.

7. Until such a new order is established and until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.

8. The terms of the Cairo declaration shall be carried out and Japanese sovereignty shall be limited to the Islands of Honshu, Hokkaido, Kyushu, Shikoku and such minor islands as we determine.

9. Japanese military forces after being completely disarmed shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners.

The Japanese government shall remove all obstacles to the revival and strength-

ening of democratic tendencies among the Japanese people. Freedom of speech and religion and of thought, as well as respect for the fundamental human rights, shall be established.

11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the payment of just reparation in kind, but not those industries which will enable her to rearm for war.

To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.

12. The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.

13. We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

North Atlantic Treaty

Signed at Washington, D.C., April 4, 1949

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defense and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

Article 1

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security, and justice, are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

Article 2

The Parties will contribute toward the further development of peaceful and friendly international relations by strength-

ening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.

Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith,

individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article 6

For the purpose of Article 5 an armed attack on one or more of the Parties is deemed to include an armed attack on the territory of any of the Parties in Europe or North America, on the Algerian departments of France, on the occupation forces of any Party in Europe, on the islands under the jurisdiction of any Party in the North Atlantic area north of the Tropic of Cancer or on the vessels or aircraft in this area of any of the Parties.

Article 7

This Treaty does not affect, and shall not be interpreted as affecting, in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

Article 8

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third state is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

Article 9

The Parties hereby establish a council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The council shall be so organized as to be able to meet promptly at any time. The council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defense committee which shall recommend measures for the implementation of Articles 3 and 5.

Article 10

The Parties may, by unanimous agreement, invite any other European state in a position to further the principles of this

Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any state so invited may become a party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

Article 11

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the states which have ratified it as soon as the ratifications of the majority of the signatories, including the ratifications of Belgium, Canada, France, Luxembourg, the Netherlands, the United Kingdom and the United States, have been deposited and shall come into effect with respect to other states on the date of the deposit of their ratifications.

Article 12

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

Article 13

After the Treaty has been in force for twenty years, any Party may cease to be a party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

Article 14

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies thereof will be transmitted by that Government to the Governments of the other signatories.

Tripartite Security Treaty

(United States, Australia, New Zealand)

Major provisions of the Tripartite agreement signed on Sept. 1, 1951, at San Francisco:

1. The parties undertake to settle by peaceful means any international disputes in which they may be involved.

2. The parties will maintain and develop their individual and collective capacity to resist armed attack.

3. The parties will consult together whenever the territorial integrity, political

independence or security of any of the parties is threatened in the Pacific.

4. Each party recognizes that an armed attack in the Pacific area on either of the other parties would be dangerous to its own peace and safety.

5. The parties hereby establish a council, consisting of their foreign ministers or their deputies, to consider matters concerning the implementation of this treaty.

6. This treaty shall remain in force indefinitely.

A Defense Treaty similar in its provisions to the Tripartite Security Treaty was signed by the United States and the Philippines in Washington, D. C., Aug 30, 1951.

United States-Japanese Treaty

Main provisions of the U. S.-Japanese Security Treaty signed at San Francisco on Sept. 8, 1951:

1. Japan grants and the U. S. accepts the right to dispose U. S. land, air and sea forces in and about Japan. Such forces may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large scale riots and disturbances in Japan caused through instigation or intervention by an outside power or powers.

2. Japan will not grant without the prior consent of the U. S. any bases or any rights, powers or authority whatsoever relating to bases, or the right of garrison or maneuver or transit of ground, air or naval forces of any third power.

3. This treaty shall expire whenever in the opinion of the governments of the U. S. and of Japan, U. N. arrangements or alternate individual or collective dispositions satisfactorily provide for the maintenance of international peace and security in the Japan area.

Japanese Peace Treaty

The Japanese Peace Treaty was signed at San Francisco on September 8, 1951, by 49 nations; the U.S.S.R., Poland and Czechoslovakia were present but refused to sign. Among the major provisions of the treaty are the following:

Peace: The state of war between Japan and the Allies is terminated.

Sovereignty: Japan's full sovereignty is recognized as is its right to apply for U. N. membership.

Territory: Japan recognizes the independence of Korea; renounces all rights, titles or claims to Formosa, the Pescadores, the Kuriles, Sakhalin, the Pacific islands formerly under mandate to Japan, the Antarctic area, Spratly Island and the Paracels.

Japan agrees to U. N. trusteeship over the Ryukyu and Daito Islands, the Bonins, Rosario Island, the Volcano Islands, Parece Vela and Marcus Island. Disposition of Japanese property on these islands is to be negotiated by Japan and the administering authorities.

Security: Japan agrees to settle its international disputes peaceably, to refrain from the threat of or the use of force and to abide by the principles of the U. N.

All occupation forces are to be withdrawn as soon as possible but not later than 90 days after a majority of the sig-

natory countries have given notice of ratification of this treaty. Nothing in this provision shall, however, prevent the stationing or retention of foreign armed forces in Japanese territory by agreement with one or more of the Allies.

Political-Economic Clauses: Japan may enter into fisheries treaties; may negotiate most-favored-nation trade and maritime treaties with the Allies; renounces all special rights and interests in China.

Japan accepts the judgments of the International Military Tribunal and Allied War Crimes Courts.

Claims and Property: Japan recognizes its responsibility to pay reparations but the Allies recognize its limited economic capacity; therefore, Japan shall pay through goods to be manufactured in Japan from raw materials provided by the victimized nations and by services. The Allies may retain certain properties seized from Japan but require the latter to return their properties within 6 months. Japan recognizes Allied industrial, literary and artistic property rights. It agrees to indemnify prisoners of war who suffered unduly but renounces similar claims against the Allies.

Settlement of Disputes: Any disagreements arising out of the interpretation of this treaty and not otherwise settled shall be submitted to the International Court of Justice.

(For treaties not listed here, see index.)

LEADING NATIONS IN RICHES AND RESOURCES

Source: *Encyclopaedia Britannica*.

The designation "nd" means that no data are available. In such cases, the relative rank of the nation is estimated.

Mineral and Metal Production

ANTIMONY ORE (thousands of metric tons, metal content, 1956)

1. U. of So. Africa ..	14.2
2. China ..	12.0 ¹
3. Bolivia ..	5.1
4. Mexico ..	4.6
5. Turkey ..	3.4
6. Yugoslavia ..	2.5
7. Algeria ..	2.1 ¹
8. Czechoslovakia ..	1.6 ¹
9. Peru ..	.9
10. Canada ..	.8

¹ Estimate.

BAUXITE (thousands of metric tons, 1956)

1. Jamaica ..	3,603
2. Surinam ..	3,483
3. British Guiana ..	2,521
4. United States ..	1,771
5. France ..	1,466
6. U.S.S.R. ..	1,100 ¹
7. Hungary ..	893
8. Yugoslavia ..	881
9. Greece ..	700
10. Fr. West Africa ..	452

¹ Estimate.

CEMENT (thousands of metric tons, 1957)

1. United States ..	49,850
2. U.S.S.R. ..	28,800
3. West Germany ..	19,600 ¹
4. Japan ..	15,180
5. France ..	12,700
6. United Kingdom ..	12,160
7. Italy ..	10,000 ²
8. China ..	6,300 ³
9. Canada ..	5,600
10. India ..	5,580

¹ Including Saar. ² Estimate. ³ 1956.

CHROMITE (thousands of metric tons, 1956)

1. Turkey ..	711.0
2. Philippines ..	709.1
3. U. of So. Africa ..	626.7
4. U.S.S.R. ..	600.0 ¹
5. So. Rhodesia ..	407.3
6. United States ..	188.4
7. Yugoslavia ..	118.8
8. West Indies ..	53.7
9. India ..	53.5
10. New Caledonia ..	48.9

¹ Estimate.

COAL (millions of metric tons, 1957)

1. United States ..	467.7 ¹
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2. U.S.S.R.	462.9 ¹
3. United Kingdom ..	227.2 ²
4. West Germany ..	133.2 ²
5. China ..	105.3 ⁴
6. Poland ..	94.0
7. France ..	56.8 ³
8. Japan ..	51.7
9. India ..	44.1
10. U. of So. Africa ..	35.2

¹ Including lignite. ² Not including Northern Ireland. ³ Not including Saar. ⁴ 1956; including lignite.

COPPER (thousands of metric tons, smelter, 1957)

1. United States ..	1,170.8 ¹
2. Chile ..	442.8 ²
3. No. Rhodesia ..	422.4 ³
4. U.S.S.R.	377.0 ⁴
5. Canada ..	294.0 ²
6. Belgian Congo ..	250.6 ⁵
7. West Germany ..	242.0 ¹
8. United Kingdom ..	207.6 ¹
9. Belgium ..	152.6 ⁶
10. Japan ..	142.2 ⁶

¹ Including secondary copper. ² Refined copper. ³ Bilister and electrolytic copper only. ⁴ 1956 estimate. ⁵ 1956. ⁶ Secondary and refined copper.

GOLD (thousands of fine oz., refinery production, 1956)

1. U. of So. Africa ..	15,897
2. U.S.S.R.	10,000 ¹
3. Canada ..	4,396
4. United States ..	1,865
5. Australia ..	1,030
6. Ghana ..	599
7. So. Rhodesia ..	536
8. Colombia ..	438
9. Philippines ..	406
10. Belgian Congo ..	374

¹ Estimate.IRON ORE (millions of metric tons, 1957)¹

1. United States ..	107.1
2. U.S.S.R.	84.2
3. France ..	57.8
4. Canada ..	20.2 ²
5. Sweden ..	20.0
6. United Kingdom ..	17.2
7. Venezuela ..	15.3
8. West Germany ..	13.1
9. China ..	11.0 ³
10. Luxembourg ..	7.8

¹ Approximate metal content: U.S., 50%; U.S.S.R., 60%; France, 35%; Canada, 55%; Sweden, 60%; United Kingdom, 30%; Venezuela, 65%; West Germany, 30%; China, unknown; Luxembourg, 30%. ² Shipments only. ³ 1956 estimate.

LEAD (thousands of metric tons, refined, 1957)

1. United States	548.4
2. U.S.S.R.	290.0 ¹
3. Australia ..	243.6
4. Mexico ..	213.6 ²
5. West Germany ..	137.9 ³
6. Canada ..	129.6
7. Belgium ..	99.2
8. France ..	93.2 ⁴
9. United Kingdom ..	87.0 ⁵
10. Yugoslavia ..	77.4

¹ 1956 estimate. ² Lead content of ores mined. ³ Not refined. ⁴ Including secondary lead. ⁵ Mostly secondary lead.

MANGANESE ORE (thousands of metric tons, 1956)

1. U.S.S.R.	4,750 ¹
2. India ..	1,655
3. U. of So. Africa ..	697
4. Ghana ..	636
5. Morocco ..	421 ²
6. Rumania ..	400 ¹
7. Belgian Congo ..	330
8. United States ..	313
9. Japan ..	270
10. Cuba ..	244

¹ Estimate. ² Former French section only.

PETROLEUM, CRUDE (millions of bbls., 1957)

1. United States ...	2,536
2. Venezuela ..	1,063
3. U.S.S.R.	704
4. Kuwait ..	401
5. Saudi Arabia ..	347
6. Iran ..	250
7. Canada ..	176
8. Iraq ..	156
9. Indonesia ..	95 ¹
10. Mexico ..	91

¹ 1956.

PIG IRON AND FERRO-ALLOYS (millions of metric tons, 1957)

1. United States	72.0 ¹
2. U.S.S.R.	37.0 ²
3. West Germany	21.6 ³
4. United Kingdom ..	14.5
5. France ..	12.1
6. Japan ..	7.1
7. Belgium ..	5.6
8. China ..	5.1 ⁴
9. Poland ..	3.7
10. Canada ..	3.6

¹ Not including electric furnace production. ² Pig iron only. ³ Including Saar. ⁴ 1956.

SILVER (millions of fine oz., smelter, 1956)

1. Mexico	43.1
2. United States	38.8
3. Canada	27.7
4. U.S.S.R.	25.0 ¹
5. Peru	21.9
6. Australia	14.4
7. Bolivia	7.5
8. Japan	6.2
9. East Germany	4.5 ¹
10. Belgian Congo	3.7

¹ Estimate.

TIN ORE (thousands of metric tons, 1956)

1. Malaya	63.4
2. Indonesia	30.6
3. Bolivia	27.3
4. Belgian Congo	14.8
5. China	13.2 ¹
6. Thailand	12.7
7. Nigeria	9.2
8. Australia	2.0
9. U. of So. Africa	1.4
10. Burma	1.1

¹ Estimate.

URANIUM

World production data are

generally unavailable, but U. S. output of uranium oxide was estimated at 10,000 tons in 1957 as compared with 6,000 tons in 1956. A member of the AEC estimated the known world reserves of uranium concentrates at 25,000,000 tons in Dec. 1957. (In the U. S., an average of 5 lb. of uranium oxide is extracted from each ton of ore.) U. S. reserves of high-grade uranium were estimated at 200,000 tons in 1957; of lower grade, about 6,000,000 tons. The world's most important deposits of uranium are believed to be in the Belgian Congo; also in the Northwest Territories and elsewhere in Canada; and in the Colorado plateau area of Colorado, New Mexico, Arizona and Utah; and in Alaska, in the United States. Deposits have also been found or reported in Australia, Bolivia, Brazil, Bulgaria, Burma, Ceylon,

Chile, China (in Manchuria), Czechoslovakia, England, Ethiopia, Finland, France, Germany, Greece, Greenland, Hungary, India, Indonesia, Iran, Japan, Madagascar, Mexico, Mozambique, Nigeria, Norway, Panamá, Philippines, Portugal, Rumania, Sardinia, South Africa, Spain, Sweden, Switzerland, the U.S.S.R. and Yugoslavia.

ZINC (thousands of metric tons, smelter, 1957)

1. United States ...	979.8 ¹
2. U.S.S.R.	351.0 ²
3. Mexico	243.0 ³
4. Belgium	234.7 ¹
5. Canada	224.4
6. West Germany	200.0 ¹
7. Poland	158.4
8. France	158.0 ¹
9. Japan	138.0 ⁴
10. Australia	112.1

¹ Including secondary zinc. ² 1956 estimate. ³ Zinc content of ores. ⁴ Refined, including secondary zinc.

Agriculture

BARLEY (thousands of metric tons, 1957)

1. China	19,760 ¹
2. U.S.S.R.	nd
3. United States ..	9,486
4. Canada	4,790
5. France	3,677
6. Turkey	3,600
7. United Kingdom ..	2,997
8. India	2,788
9. Denmark	2,547
10. West Germany ..	2,504

¹ Estimate.

BUTTER (thousands of metric tons, factory production, 1957)

1. United States	644
2. U.S.S.R.	550 ¹
3. France	323 ²
4. West Germany	311
5. New Zealand	202 ³
6. Australia	193 ³
7. Denmark	174
8. Canada	138
9. Sweden	88
10. Netherlands	76

¹ 1956. ² 1955. ³ Year ending June 30, 1957.

CATTLE (number in millions, various dates)

1. India	158.9 ¹
2. United States	95.2 ²
3. U.S.S.R.	70.4 ³

4. Brazil	66.7 ³
5. Argentina	49.0 ³
6. Pakistan	31.1 ⁴
7. China	28.8 ⁵
8. Ethiopia-Eritrea ..	21.3 ¹
9. France	17.8 ³
10. Australia	16.5 ³

¹ 1955-56. ² 1957. ³ 1956. ⁴ 1953-54. ⁵ 1953. ⁶ 66.6 including buffaloes.

CHEESE (thousands of metric tons, factory production, 1957)

1. United States	639.6
2. France	350.0 ¹
3. Italy	349.0 ²
4. Netherlands	162.4
5. West Germany	154.8
6. Argentina	124.2 ³
7. United Kingdom ..	115.2
8. U.S.S.R.	105.0 ¹
9. Denmark	98.4
10. New Zealand	96.0 ⁴

¹ 1955. ² 1956. ³ 1956; including farm cheese. ⁴ Year ending June 30, 1957.

COTTON, GINNED (thousands of bales, 500 lb. gross, 1957)¹

1. United States	10,964
2. U.S.S.R.	6,000 ²
3. India	4,300
4. China	3,100 ²
5. Mexico	2,010

6. Brazil	1,820
7. Egypt	1,711
8. Pakistan	1,400
9. Sudan	617 ³
10. Turkey	575

¹ Preliminary figures. ² 1956.

FORESTS (millions of acres, latest data available, 1958)¹

1. U.S.S.R.	2,275
2. Brazil	975
3. Canada	835
4. United States	825
5. Fr. West Africa	420
6. Fr. Eq. Africa	340 ²
7. Indonesia	300
8. Belgian Congo	250
9. Sudan	225
10. China	210

¹ Of present or potential value. ² Including savannah.

HOGS (number in millions, 1956)

1. China	84.0 ¹
2. U.S.S.R.	52.2
3. United States	51.6 ²
4. Brazil	41.4
5. West Germany	14.6
6. Poland	11.6
7. East Germany	9.0
8. France	7.7
9. Mexico	6.9
10. Canada	6.0

¹ 1955-56. ² 1957.

LAND, ARABLE (millions of acres, latest data available, 1958)¹

1. U.S.S.R.	585
2. United States	478
3. India	325 ²
4. China	250
5. Belgian Congo	120 ³
6. Canada	97
7. Argentina	75
8. Fr. Eq. Africa	74
9. Pakistan	60
10. France	52

¹ Actually planted in crops, plus temporary meadows and pastures. ² Including Kashmir. ³ Including inland water.

MEAT (thousands of metric tons, 1957)¹

1. United States ...	12,215
2. U.S.S.R.	2,660 ²
3. West Germany ..	2,098
4. France	1,753 ³
5. Argentina	1,741 ²
6. United Kingdom ..	1,675
7. Brazil	1,375 ⁴
8. Australia	1,293 ⁵
9. Poland	873
10. Canada	794 ³

¹ Chiefly beef, veal, mutton, lamb and pork produced in slaughtering houses or packing plants. ² 1956. ³ Inspected slaughter. ⁴ 1954. ⁵ Year ending June 30, 1957; including farm slaughter.

MILK, Cow's (thousands of metric tons, 1957)

1. United States ...	57,324
2. U.S.S.R.	45,000 ¹
3. France	18,202 ²
4. West Germany ..	17,354
5. United Kingdom ..	10,308 ³
6. Poland	10,278 ²
7. Canada	7,836
8. India	7,756 ³
9. Italy	6,800
10. Australia	6,384 ⁴
11. Netherlands ...	5,943 ²
12. Argentina	5,411 ²
13. Denmark	5,328
14. East Germany ..	5,280
15. New Zealand ...	5,126 ⁴

¹ Rough estimate. ² 1956. ³ Milk sold through "Milk Marketing Schemes." ⁴ Year ending June 30, 1957.

OATS (thousands of metric tons, 1957)

1. United States ...	18,991
2. U.S.S.R.	nd
3. Canada	5,931
4. France	2,715
5. Poland	2,485
6. West Germany ..	2,228
7. United Kingdom ..	2,180

8. Czechoslovakia ..	1,034 ¹
9. East Germany ..	999
10. Argentina	882

¹ 1956.

POTATOES (thousands of metric tons, 1957)

1. U.S.S.R.	147,800 ¹
2. Poland	38,100 ²
3. West Germany ..	26,289
4. France	14,949
5. East Germany ..	14,841
6. United States ..	10,727
7. Czechoslovakia ..	9,635 ²
8. United Kingdom ..	5,932
9. Spain	4,307 ²
10. Italy	3,418 ³
11. Austria	3,229 ²
12. Japan	2,749 ²

¹ Announced 1955 plan. Estimate 80,000-90,000. ² 1956.

RICE (thousands of metric tons, 1957-58)¹

1. China	67,600
2. India	40,000
3. Japan	14,400
4. Pakistan	14,100
5. Indonesia	10,900
6. Thailand	7,500
7. Burma	7,200
8. Brazil	3,700 ²
9. Philippines	3,400
10. South Korea ...	3,300

¹ Preliminary figures. ² 1956-57.

RUBBER (thousands of metric tons, 1957)

1. United States ...	1,136 ¹
2. Indonesia	696
3. Malaya-Singapore ..	649
4. U.S.S.R.	nd
5. Thailand	135 ²
6. Canada	134 ¹
7. Ceylon	100
8. Cambodia, Viet-nam ..	91
9. East Germany ...	74 ¹
10. Sarawak	42

¹ Synthetic only. ² Net exports.

SHEEP (number in millions, various dates)

1. Australia	149.6 ¹
2. U.S.S.R.	129.9 ¹
3. Argentina	48.0 ¹
4. China	42.1 ²
5. New Zealand ...	40.2 ³
6. India	38.7 ⁴
7. U. of So. Africa ..	37.1 ⁵
8. United States ...	30.8 ¹
9. Turkey	28.0 ³
10. United Kingdom ..	23.6 ³

11. Uruguay	22.9 ³
12. Brazil	18.5 ³
13. Peru	16.5 ³

¹ 1957. ² 1954-55. ³ 1956. ⁴ 1955-56. ⁵ 1954.

SUGAR (thousands of metric tons, raw value, 1957-58)

1. Cuba	6,785
2. U.S.S.R.	5,280
3. Brazil	3,278
4. United States ...	3,108
5. India	2,970
6. France	1,815
7. West Germany ..	1,815
8. Mexico	1,414
9. Philippines	1,320
10. Australia	1,304.2 ¹
11. Hawaii	1,265
12. Italy	977 ¹
13. Puerto Rico ...	898.5 ¹
14. Poland	843 ¹
15. U. of So. Africa ..	808 ¹

¹ 1956-1957.

WHEAT (thousands of metric tons, 1957)

1. U.S.S.R.	nd
2. United States ...	25,776
3. China	23,725
4. France	11,020
5. Canada	10,165
6. India	9,214
7. Turkey	8,450 ¹
8. Italy	8,449
9. Argentina	5,300
10. Germany	5,102
11. Spain	4,391 ¹
12. Rumania	4,095
13. Pakistan	3,656

¹ Including spelt.

WOOL (thousands of metric tons, greasy basis, 1957)

1. Australia	711
2. U.S.S.R.	261 ¹
3. New Zealand ...	223
4. Argentina	178
5. U. of So. Africa ..	145
6. United States ...	136
7. China	nd ¹
8. Uruguay	82
9. United Kingdom ..	47 ²
10. Spain	39 ²
11. Turkey	39 ²
12. India	33 ²
13. France	29 ²
14. Brazil	25 ²
15. Chile	18 ²

¹ Estimated. Combined production of U.S.S.R., China and East European satellites estimated at 375,000 metric tons. ² 1956, clean basis.

Industry, Trade, Communications

AIRLINES (Millions of passenger miles, monthly average, 1957)

1. United States	2,603
2. United Kingdom	201
3. France	198
4. U.S.S.R.	nd
5. Canada	142 ¹
6. Netherlands	102
7. Australia	101 ²
8. Brazil	97 ²
9. Mexico	73 ²
10. Belgium	48

¹ 11 months. ² 1956.

ALUMINUM (thousands of metric tons, 1957)

1. United States	1,843.2 ¹
2. Canada	557.7 ²
3. U.S.S.R.	535.0 ²
4. West Germany	243.6 ¹
5. France	196.8 ¹
6. United Kingdom	134.3 ¹
7. Norway	95.6
8. Japan	87.5 ¹
9. Austria	72.8
10. Italy	66.2

¹ Including secondary aluminum. ² 1956.

ELECTRICITY (millions of kwh, monthly average, 1957)

1. United States	52,615
2. U.S.S.R.	17,460
3. United Kingdom	7,581 ¹
4. West Germany	7,576 ²
5. Canada	7,559
6. Japan	6,476
7. France	4,794
8. Italy	3,490
9. East Germany	2,728
10. Sweden	2,427
11. Norway	2,121
12. Poland	1,763

¹ Not including Northern Ireland. ² Not including Saar.

EMPLOYMENT INDEX (non-agricultural, 1957; 1953 = 100)¹

1. Yugoslavia	130
2. Japan	130
3. West Germany	122 ²
4. Austria	117
5. Poland	116 ³
6. Luxemburg	112 ⁴
7. Canada	112
8. New Zealand	110 ⁵
9. Australia	109
10. Hawaii	109

¹ Data on U.S.S.R. and satellites not available. ² Not including Saar. ³ Including agriculture. ⁴ Incomplete coverage. ⁵ 10 months average.

EXPORT INDEX (1957; 1953 = 100)¹

1. Japan	232
2. Yugoslavia	212 ²
3. West Germany	188
4. Austria	185
5. Mexico	170 ²
6. Italy	156
7. Chile	153
8. Philippines	149 ³
9. Sweden	138
10. Netherlands	137

¹ Volume of exports after eliminating price change effects; principal nations only, not including U.S.S.R. and satellites. ² Effects of price changes not eliminated. ³ 11 months average.

INDUSTRIAL PRODUCTION INDEX (1957; 1953 = 100)

1. Yugoslavia	170
2. Japan	161
3. U.S.S.R.	155
4. West Germany	147 ¹
5. Austria	146
6. France	145 ¹
7. Greece	145 ²
8. China, Taiwan	142
9. Czechoslovakia	139
10. Italy	138
11. Finland	131
12. Mexico	130

¹ Excluding construction. ² Not including mining and gas manufacture.

MERCHANT FLEETS (millions of gross tons, 1957)¹

1. United States	23.5 ²
2. British Commonwealth	20.4
3. Liberia	8.4 ³
4. Norway	8.1
5. Italy	4.3
6. Panamá	4.1 ³
7. Japan	4.1
8. Netherlands	3.9
9. France	3.8
10. West Germany	3.1
11. Sweden	2.9 ⁴
12. U.S.S.R.	2.6 ⁴

¹ Ships of 1,000 gross tons or more. ² Not including Great Lakes shipping; including 12,847,000 tons in reserve. ³ Mostly vessels of other nations, flying under "flag of convenience," practically tax-free. ⁴ 1956.

MOTOR VEHICLES (production in thousands, 1957)¹

1. United States	7,213 ²
2. West Germany	1,212
3. United Kingdom	1,149
4. France	928
5. U.S.S.R.	486
6. Canada	411
7. Italy	352
8. Japan	182
9. Australia	150 ³
10. Sweden	57 ³

¹ Passenger car production greatly

exceeds commercial vehicle production in all nations listed except U.S.S.R. (114,000 passenger cars, 372,000 other) and Japan (47,000 and 155,000). ² Factory sales. ³ 1956.

RAILWAYS (millions of metric freight-tons carried, monthly average, 1957)

1. United States	193.8
2. U.S.S.R.	114.3 ²
3. West Germany	25.3
4. United Kingdom	23.2 ³
5. Poland	20.7
6. East Germany	18.4
7. France	18.1
8. Canada	14.3 ²
9. Japan	14.2 ⁴
10. Czechoslovakia	13.3

¹ Class I railways only. ² 1956. ³ Not including Northern Ireland. ⁴ State railways; year ending March 31, 1958.

RETAIL TRADE INDEX (1957; 1953 = 100)¹

1. Japan	171 ²
2. Argentina	170
3. France	164 ³
4. Mexico	161 ⁴
5. Yugoslavia	160
6. Austria	146
7. Poland	143
8. West Germany	141
9. Australia	136 ⁵
10. Netherlands	136

¹ Internal commerce, principal nations only; data on U.S.S.R. unavailable. ² Department stores only. ³ Mainly grocery stores. ⁴ 11 months. ⁵ Year ending June 30, 1957.

STEEL, CRUDE (millions of metric tons, 1957)

1. United States	102.3
2. U.S.S.R.	51.0
3. West Germany	27.9 ¹
4. United Kingdom	22.1
5. France	14.1
6. Japan	12.6
7. Italy	6.8
8. Belgium	6.3
9. Poland	5.3
10. Czechoslovakia	4.8 ²
11. Canada	4.6
12. China	4.5 ²
13. Australia	2.4 ²

¹ Including Saar. ² 1956.

TELEPHONES (number per 100 population, 1957)

1. United States	35.5
2. Sweden	31.5
3. Canada	27.6
4. New Zealand	25.6
5. Switzerland	25.5
6. Denmark	20.5
7. Australia	18.5
8. Norway	17.8
9. Iceland	17.4
10. United Kingdom	14.0

Human and Military Resources

BIRTH RATE, HIGHEST ANNUAL (per 1,000 population, 1957)¹

1. Mexico	46.9
2. China	nd ²
3. Brazil	43.0 ³
4. Thailand	34.2 ⁴
5. Iran	32.2
6. Canada	28.6 ⁵
7. Poland	27.9 ⁶
8. U. of So. Africa	25.6 ⁷
9. U.S.S.R.	25.0 ³
10. United States	25.0

¹ Larger nations only; all Central American and most smaller South American and Caribbean nations have annual birth rates usually exceeding 35.0. Other smaller nations usually exceeding 35.0 include Burma, Ceylon, Egypt, Formosa, Jordan and Malaya. ² 44.8 Taiwan. ³ Rough estimate, 1956. ⁴ 1955. ⁵ Not including Yukon and Northwest Territories. ⁶ 1956. ⁷ White population only.

DEATH RATE, LOWEST ANNUAL (per 1,000 population, 1957)¹

1. Iran	7.0
2. Netherlands	7.5

3. U.S.S.R.	7.7 ²
4. Canada	8.3 ³
5. Japan	8.3
6. U. of So. Africa	8.8 ⁴
7. Australia	8.8 ⁵
8. Peru	9.0 ⁶
9. United States	9.6
10. Spain	9.8

¹ Following smaller nations not included: Syria, 5.7 (incomplete registration); Israel, 6.2 (Jewish population only); Puerto Rico, 7.0; Uruguay, 7.0; Greece, 7.6; Formosa, 8.0; Jordan, 8.4 (1956); Norway, 8.6; Dominican Republic, 9.1; Denmark, 9.3; New Zealand, 9.3 (not including Maoris); Finland, 9.4; Bulgaria, 9.4 (1956). ² Rough estimate, 1956. ³ Not including Yukon and Northwest Territories. ⁴ White population only. ⁵ Not including full-blooded aborigines. ⁶ Not including jungle Indians.

ARMIES (estimated personnel in thousands, 1957-58)

1. China	3,000 ¹
2. U.S.S.R.	2,300
3. United States	900 ²
4. South Korea	700
5. France	565

6. Yugoslavia	555
7. Spain	460
8. Turkey	425
9. North Korea	400 ³
10. India	400

¹ Communist China; Formosan forces estimated at 300,000. ² June, 1958. ³ Not including about 350,000 Chinese.

NAVIES (number of warships, 1957)¹

1. United States	574
2. U.S.S.R.	213
3. United Kingdom	101
4. France	30
5. Spain	23
6. Argentina	20
7. Sweden	19
8. Netherlands	15
9. Canada	14
10. Italy	14

¹ Dec. 1957, not including submarines, frigates and escort craft; estimated number of submarines on that date: U.S.S.R., 500; U.S., 205; United Kingdom, 54.

World Defense Statistics

Source: *Encyclopaedia Britannica*, 1957.

NOTE: For Latin American countries, see the table on p. 262.

Country	Army No. of Men	Air Force No. of Planes	Navy		Country	Army No. of Men	Air Force No. of Planes	Navy	
			Capital Ships	Sub- marines				Capital Ships	Sub- marines
Afghanistan	50,000	small	0	0	Jordan	58,000	20	0	0
Albania	36,000		0	0	Korea, North	400,000 ⁴		0	0
Australia	23,098	100 ¹	8		Korea, South	700,000		0	0
Austria	20,000		0	0	Laos	25,000		0	0
Belgium	140,000	350	0	0	Lebanon	6,000	10	0	0
Bulgaria	175,000	90	0	0	Liberia	4,000		0	0
Cambodia	35,000	small	0	0	Nepal	20,000		0	0
Canada	47,445	615 ²	14	0	Netherlands	39,100	300	15	6
China, mainland	3,000,000	2,000	17	13	New Zealand	9,300		2	0
China, Taiwan (Formosa)	300,000	2,500	10		Norway	20,000	125	5	8
Czechoslovakia	240,000		0	0	Pakistan	200,000		9	0
Denmark	41,000	100	0	4	Philippines	58,000		0	0
Egypt	100,000	150	4	3	Poland	255,000		2	4
Finland	34,400	60	0	0	Portugal	41,000	350	5	3
France	565,000		30	14	Rumania	250,000	240	4	3
Germany, East	113,500	300	1	2	Saudi Arabia	15,000		0	0
Germany, West	130,000	1,350	1	2	Spain	461,000		23	6
Greece	102,000		3	4	Sweden	600,000	140	19	24
Hungary	205,000	90	0	0	Switzerland	500,000	400	0	0
India	400,000 ³		8	0	Syria	65,000	small	0	0
Indonesia	175,000		1	0	Thailand	100,000	small	0	4
Iran	125,000	300	0	0	Tunisia	3,000		0	0
Iraq	50,000	84	0	0	Turkey	422,750	1,000	9	7
Ireland	10,000		0	0	Union of South Africa	4,640	108	2	0
Israel	50,000	small	2	0	U.S.S.R.	2,300,000	20,000	213 ⁵	475
Italy	268,000	100	14	5	United Kingdom	329,700		101 ⁶	56
Japan	160,000	421	4	1	United States	911,578 ⁷	37,648	574 ⁸	204
					Yugoslavia	556,300		2	2

¹ Estimated. ² Including naval aircraft. ³ Volunteer reserves. ⁴ Not including 350,000 Chinese. ⁵ Naval personnel, estimated at 750,000. ⁶ Naval personnel, 128,000. ⁷ As of March 31, 1958. ⁸ Naval personnel, including Marines 835,754, as of March 31, 1958.

Latin American Defense Forces, 1956

Source: *Encyclopaedia Britannica*.

Country	Combat Planes	Battle-ships	Cruisers	Smaller Naval Vessels ¹	Country	Combat Planes	Battle-ships	Cruisers	Smaller Naval Vessels ¹
Argentina.....	150	2	5	24	Haiti ⁸	18	0	0	13
Bolivia ²	small	0	0	0	Honduras ⁹	32	0	0	0
Brazil.....	n.a.	0	2	20	Mexico ¹⁰	270	0	0	8
Chile.....	n.a.	1	2	17	Nicaragua ¹¹	0	n.a.	n.a.	n.a.
Colombia ³	n.a.	0	0	15	Panamá.....	0	0	0	0
Costa Rica ⁴	0	0	0	0	Paraguay ⁷	36	0	0	5
Cuba ⁵	50	0	0	20	Peru ¹²	small	0	0	12
Dominican Republic ⁶	n.a.	0	0	11	El Salvador ¹³	small	0	0	0
Ecuador ⁶	(small)	0	0	4	Uruguay.....	small	0	0	6
Guatemala ⁷	small	0	0	0	Venezuela ⁶	small	0	0	9

¹ Destroyers, frigates, escort vessels. ² Army, 15,000. ³ Army, 13,000-14,000. ⁴ No army. ⁵ Army, 12,000. ⁶ Army, 10,000. ⁷ Army, 6,000. ⁸ Army, 5,000. ⁹ Army, 2,500. ¹⁰ Army, 55,000 (1951). ¹¹ Army, 3,500. ¹² Authorized army, 32,000. ¹³ Army, 3,000.

World Education Statistics

Source: *Statistical Yearbook, United Nations, 1957*.

For Latin American countries, see p. 263. The data given is for the year 1955 unless otherwise noted. NOTE: where figures are not available, the abbreviation n.a. is used; where the illiteracy rate is very slight the abbreviation negl. is used.

Country	Illiteracy rate, % ¹	Number of schools	Colleges and universities	Total students ²	Country	Illiteracy rate, % ¹	Number of schools	Colleges and universities	Total students ²
Afghanistan.....	n.a.	701 ⁸	6 ³	113,589 ⁹	Kuwait.....	n.a.	47 ⁸	2 ⁹	14,704 ⁸
Albania.....	high	2,770 ⁸	4 ³	201,442 ⁹	Laos.....	63.2 ¹⁰	1,271	1 ⁹	80,400
Australia.....	negl. ⁴	10,696 ³	9 ³	1,777,523 ³	Lebanon.....	n.a.	193 ¹⁷	6 ³	251,503 ³
Austria.....	negl.	7,014 ³	14 ³	967,159 ³	Liberia.....	95.0	515	3	46,301
Belgium.....	3.1 ⁶	16,600 ³	19 ³	1,671,570 ³	Luxemburg.....	negl.	67 ³	1 ³	40,656 ³
Bulgaria.....	24.27 ⁸	n.a.	n.a.	1,175,986 ³	Malaya.....	61.7 ⁹	4,913 ⁸	2 ⁹	820,827 ³
Burma.....	42.9 ³	11,514	7 ⁹	1,511,921	Morocco.....	n.a.	86 ³	6 ³	369,750 ³
Cambodia.....	n.a.	2,471 ³	1 ³	247,796 ³	Nepal.....	n.a.	1,323 ³	14 ³	73,400 ³
Canada.....	negl.	31,127 ³	120 ^{3,9}	3,256,894 ³	Netherlands.....	negl.	15,240	10	2,402,651
Ceylon.....	42.0 ⁹	6,742 ³	3 ³	172,527 ³	New Zealand.....	negl.	2,870 ³	6 ³	457,126 ³
China, mainland	n.a.	511,433	151	57,946,423	Norway.....	negl.	7,607 ³	8 ³	530,846 ³
China, Taiwan (Formosa).....	n.a.	1,660	16	1,516,321	Pakistan.....	86.8	47,674 ³	152 ³	5,167,964 ³
Czechoslovakia.....	1.7 ⁵	n.a.	n.a.	2,426,410 ⁵	Philippines.....	37.8 ¹¹	21,920 ³	n.a. ³	4,322,232 ³
Denmark.....	negl.	4,297 ¹⁰	8 ³	665,831 ³	Poland.....	n.a.	32,822 ³	57 ³	4,295,961 ³
Egypt.....	74.5 ⁶	8,108 ³	3 ³	2,067,181 ³	Portugal.....	41.7 ¹⁸	16,218 ³	n.a. ³	964,697 ³
Ethiopia.....	70.0 ¹¹	511 ¹¹	2 ¹¹	67,844 ¹¹	Puerto Rico.....	25.6 ¹⁸	2,392 ³	4 ³	676,654 ³
Finland.....	negl.	7,404	11	781,702	Rumania.....	23.1	23,004	50	2,191,462
France.....	3.3 ³	89,762 ³	151 ³	7,642,110 ³	Saudi Arabia.....	n.a.	681 ³	1 ³	77,241 ³
Germany.....	negl.	61,847	104	11,292,294	Spain.....	14.2 ³	70,555 ³	25 ³	3,907,766 ³
Ghana.....	n.a.	4,481	1	560,192	Sweden.....	negl.	10,540 ³	15 ³	1,110,552 ³
Greece.....	23.5 ¹²	11,199 ³	8 ³	1,227,560 ³	Switzerland.....	negl.	(¹⁷)	9 ¹⁰	634,342 ¹⁰
Hungary.....	5.9 ^{18,14}	9,238 ³	31 ⁵	1,635,011 ⁵	Syria.....	n.a.	3,044 ³	1 ³	418,948 ³
Iceland.....	negl.	253 ³	1 ³	26,985 ³	Thailand.....	46.3 ³	21,700 ³	5 ³	3,268,254 ³
India.....	82.1 ¹²	268,348 ¹⁰	992 ¹⁰	28,023,902 ¹⁰	Tunisia.....	n.a.	1,866 ³	4 ³	305,119 ³
Indonesia.....	47.0 ⁸	33,703 ³	828 ^{3,9}	7,568,741 ³	Turkey.....	65.4 ¹⁸	18,750 ¹¹	13 ¹¹	1,880,640 ¹¹
Iran.....	high	7,041 ³	1 ^{3,9}	918,650 ³	Union of South Africa	70.9 ⁸	9,997 ¹⁰	9 ¹⁴	742,079 ¹⁴
Iraq.....	n.a.	2,059	15	420,182	United Kg'dm	negl.	36,781 ³	25 ³	8,155,020 ³
Ireland.....	negl.	5,604 ³	7 ³	585,962 ³	United States.....	negl.	123,896 ^{3,19}	1,665 ⁵	41,584,706 ⁵
Israel.....	6.9 ¹⁵	1,417	4	323,864	U.S.S.R.....	10.0 ¹⁶	230,620	765	33,775,588
Italy.....	10.0 ³	63,852 ³	42 ³	7,383,988 ³	Vietnam.....	n.a.	3,925 ³	7 ⁵	732,460 ⁵
Japan.....	negl.	52,515	545	22,324,105	Yemen.....	n.a.	2,177 ³	1 ⁵	94,697 ⁵
Jordan.....	50.0 ¹⁶	1,120	5 ⁹	249,064	Yugoslavia.....	25.0 ¹⁰	17,874 ³	75 ³	997,911 ³
Korea, South.....	n.a.	5,407 ³	71 ³	3,416,975 ³					

¹ For ten years and older. ² Includes colleges and universities. ³ 1954 figures. ⁴ For European population. ⁵ 1956 figures. ⁶ 1947 figures. ⁷ For fifteen years and older. ⁸ 1946 figures. ⁹ Including normal schools. ¹⁰ 1953 figures. ¹¹ 1952 figures. ¹² 1951 figures. ¹³ For six years and older. ¹⁴ 1949 figures. ¹⁵ 1948 figures. ¹⁶ Estimate. ¹⁷ Incomplete. ¹⁸ 1950 figures. ¹⁹ Public schools only.

Latin American Education

Source: *Encyclopaedia Britannica*.

Country	Illiteracy rate, %	No. of schools	Universities	Total students	Country	Illiteracy rate, %	No. of Schools	Universities	Total Students
Argentina.....	8	19,138 ¹	6 ¹	3,057,471 ¹	Haiti.....	90	n.a.	n.a.	n.a.
Bolivia.....	69 ²	n.a.	5 ²	258,000 ²	Honduras.....	65 ²	9,061 ⁶	1 ⁶	117,292 ⁶
Brazil ⁴	51 ²	85,534 ²	11 ²	6,349,515 ²	Mexico.....	38 ²	27,181 ⁷	14 ⁷	3,151,379 ⁷
Chile.....	24 ⁵	7,183 ⁵	5 ⁵	906,055 ⁵	Nicaragua.....	60	3,593 ⁷	1 ⁷	123,832 ⁷
Colombia.....	37 ²	15,582 ⁵	22 ²	1,224,672 ²	Panamá.....	28 ^{2,8}	1,081 ⁶	1 ⁶	156,571 ⁶
Costa Rica.....	21 ²	1,332 ⁶	1 ⁶	150,649 ⁶	Paraguay.....	60	1,794 ⁷	1 ⁷	254,493 ⁷
Cuba.....	25	n.a.	4 ²	733,648 ²	Peru.....	50	12,068 ⁶	5 ⁶	1,140,399 ⁶
Dominican Republic.....	57 ²	2,641 ⁶	1 ⁶	249,294 ⁶	El Salvador.....	58 ²	2,158 ⁶	1 ⁶	223,816 ⁶
Ecuador.....	44 ²	3,888 ²	5 ²	384,786 ²	Uruguay.....	35	1,942 ⁷	1 ⁷	310,579 ⁷
Guatemala.....	72 ²	3,662 ⁷	1 ⁷	195,335 ⁷	Venezuela.....	60 ²	7,211 ⁶	5 ⁶	642,457 ⁶

¹ 1951. ² 1950. ³ 1952. ⁴ Instruction given in Portuguese only. ⁵ 1943. ⁶ 1954. ⁷ 1953. ⁸ Excluding tribal Indians. ⁹ 1949.

Value of Exports and Imports

(in millions of U. S. dollars)

Sources: *Statistical Yearbook*, United Nations, and *Monthly Bulletin of Statistics*, May 1958, United Nations.

Country	Exports ¹	Imports ¹	Country	Exports ¹	Imports ¹
Afghanistan.....	\$ 40.1 ²	\$ 25.3 ²	Israel.....	\$ 139.0	\$ 407.0
Albania.....	23.0 ²	37.0 ²	Italy.....	2,540.0	3,626.0
Argentina.....	971.0	1,310.0	Japan.....	2,853.0	4,284.0
Australia.....	2,208.0	1,683.0	Jordan.....	13.9 ²	77.8 ²
Austria.....	979.0	1,128.0	Korea.....	25.2	205.7 ²
Belgium-Luxembourg.....	3,176.0	3,423.0	Laos.....	1.3 ²	35.3 ²
Bolivia.....	107.8 ²	81.4 ²	Lebanon.....	42.0	252.0
Brazil.....	1,482.0 ²	1,233.9 ²	Liberia.....	44.5 ²	26.8 ²
Bulgaria.....	339.0 ²	248.0 ²	Malaya.....	1,363.0	1,431.0
Burma.....	241.7 ²	197.4 ²	Mexico.....	614.0	1,155.0
Cambodia.....	35.3 ²	56.4 ²	Morocco.....	320.0	403.0
Canada.....	5,148.0	5,870.0	Netherlands.....	3,097.0	4,105.0
Ceylon.....	353.0	379.0	New Zealand.....	772.0	830.0
Chile.....	545.6 ²	354.3 ²	Nicaragua.....	57.5 ²	68.8 ²
China—mainland.....	1,005.3 ⁴	1,010.5 ⁴	Norway.....	821.0	1,274.0
China—Taiwan (Formosa).....	148.0	129.0	Pakistan.....	340.2 ²	355.0 ²
Colombia.....	520.0	477.0	Panamá.....	21.0	86.0
Costa Rica.....	84.0	103.0	Paraguay.....	36.7 ²	24.6 ²
Cuba.....	666.2 ²	569.7 ²	Peru.....	330.0	401.0
Czechoslovakia.....	1,387.0 ²	1,186.0 ²	Philippines.....	414.0	620.0
Denmark.....	1,359.0	1,174.0	Poland.....	985.0 ²	1,022.0 ²
Dominican Republic.....	161.0	119.0	Portugal.....	288.0	501.0
Ecuador.....	93.9 ²	80.8 ²	Rumania.....	395.0 ²	352.0 ²
Egypt.....	493.0	524.0	El Salvador.....	112.7 ²	104.7 ²
Eritrea and Ethiopia.....	61.0 ²	63.3 ²	Spain.....	441.4 ²	766.7 ²
Finland.....	822.0	889.0	Sweden.....	2,145.0	2,421.0
France.....	5,048.0	6,118.0	Switzerland.....	1,560.0	1,964.0
Germany.....	9,982.0	8,833.0	Syria.....	152.0	171.0
Ghana.....	222.5 ²	248.7 ²	Thailand.....	335.2 ²	361.3 ²
Greece.....	220.0	525.0	Tunisia.....	112.3 ²	194.3 ²
Guatemala.....	109.0	119.0	Turkey.....	345.0	397.0
Haiti.....	42.8 ²	47.0 ²	Un. of So. Africa.....	1,257.0	1,542.0
Honduras.....	72.6 ²	58.6 ²	United Kingdom.....	9,310.0	11,038.0
Hungary.....	493.0 ²	456.0 ²	United States.....	20,809.7	12,978.1
Iceland.....	61.0	84.0	Uruguay.....	128.0	227.0
India.....	1,269.1 ²	1,711.6 ²	U.S.S.R.....	3,669.0 ²	3,613.0 ²
Indonesia.....	882.0 ²	853.1 ²	Venezuela.....	2,121.5 ²	1,026.4 ²
Iran.....	111.4 ⁵	309.7 ²	Vietnam.....	45.1 ²	217.7 ²
Iraq.....	447.7 ²	317.6 ²	Yugoslavia.....	394.0	662.0
Israel.....	366.0	510.0			

¹ Figures are for 1957 unless otherwise indicated. ² 1956. ³ 1955. ⁴ Estimated. ⁵ 1954. ⁶ 1948.

Area and Population by Country

Country	Area, sq. mi.	Population	Year ¹	Country	Area, sq. mi.	Population	Year ¹
Afghanistan	250,966	12,000,000	1956E	Lebanon	4,015	1,525,000	1957E
Albania	11,100	1,421,000	1956E	Liberia	43,000	1,250,000	1955E
Argentina	1,084,359	19,858,000	1957E	Libya	679,358	1,091,830	1954C ¹¹
Australia	2,974,581	9,643,000	1957E	Liechtenstein	61	14,861	1955C
Austria	32,374	6,983,000	1956E	Lithuania ⁸	31,200	2,700,000	1956E
Belgium	11,779	8,951,443	1956E	Luxemburg	999	312,500	1956E
Bhutan	19,305	623,000	1955E	Maldives Islands	115	89,000	1955E
Bolivia	424,162	3,273,000	1957E	Mexico	760,373	31,426,000	1957E
Brazil	3,287,195	61,268,000	1957E	Monaco	0.59	20,422	1956C
Bulgaria	42,796	7,601,000	1956E	Mongolian People's Rep.	614,350	1,000,000	1956E
Burma	261,757	20,054,000	1957E	Morocco	174,553	8,580,000	1956E
Cambodia	67,568	4,358,000	1955E	Nepal	54,510	8,431,537	1954C
Canada	3,619,616	16,589,000	1957E	Netherlands	12,482	11,009,000	1957E
Ceylon	25,332	8,929,000	1956E	New Zealand	103,740	2,229,000	1957E
Chile	286,396	7,121,000	1957E	Nicaragua	57,143	1,331,000	1957E
China ²	3,911,209	590,194,175	1953C	Norway	125,064	3,496,000	1957E
Colombia	439,519	13,227,000	1957E	Pakistan	364,737	84,770,000	1957E
Costa Rica	19,695	1,035,000	1957E	Panamá	28,753	960,000	1957E
Cuba	44,217	6,410,000	1957E	Paraguay	157,047	1,638,000	1957E
Czechoslovakia	49,354	13,353,000	1957E	Peru	482,258	9,923,000	1957E
Denmark	16,577	4,475,000	1957E	Philippines	114,830	22,690,000	1957E
Dominican Republic	18,703	2,698,000	1957E	Poland	120,442	28,180,000	1957E
Ecuador	105,743	3,890,000	1957E	Portugal	35,358	8,909,000	1957E
Egypt	386,100	24,020,000	1957E	Rumania	91,654	17,579,000	1956E
Estonia ³	17,400	1,100,000	1956E	Saar	991	996,000	1955E
Ethiopia ⁴	457,142	20,000,000	1956E	Salvador, El	8,260	2,268,464	1956E
Finland	130,119	4,333,000	1957E	San Marino	38	14,000	1955E
France	212,736	44,000,000	1957E	Saudi Arabia	617,760	7,000,000	1952E
Germany (east) ⁵	41,380	16,587,000	1956E	Spain	194,945	29,431,000	1957E
Germany (west) ⁶	94,719	51,469,000	1957E	Sudan	967,500	10,209,703	1956C
Ghana	91,843	4,691,000	1956E	Sweden	173,564	7,369,000	1957E
Greece ⁷	51,182	8,031,000	1956E	Switzerland	15,941	5,117,000	1957E
Guatemala	42,042	3,430,000	1957E	Syria	70,014	3,970,000	1956E
Haiti	10,748	3,384,000	1957E	Thailand	198,270	21,076,000	1957E
Honduras	43,277	1,711,000	1956E	Tibet	469,143	1,273,969	1953C
Hungary	35,905	9,812,000	1957E	Tunisia	48,332	3,800,000	1957E
Iceland	39,768	164,000	1957E	Turkey	296,185	24,797,000	1956E
India ⁸	1,269,640	392,440,000	1957E	Union of So. Africa ¹³	472,733	14,167,000	1957E
Indonesia ⁹	575,893	85,500,000	1957E	U.S.S.R.	8,602,700	200,200,000	1956E
Iran	636,293	21,794,000	1955E	United Kingdom	93,599	51,455,000	1957E
Iraq	171,599 ¹⁰	6,538,000	1957E	United States	2,974,726	171,229,000	1957E
Ireland	26,601	2,885,000	1957E	Uruguay	68,369	2,650,000	1956E
Israel	7,984	1,924,000	1957E	Vatican City State	(1) ¹¹	947	1952E
Italy	116,316	48,353,000	1957E	Venezuela	352,143	6,134,000 ¹²	1957E
Japan	142,801	90,900,000	1957E	Vietnam (north)	63,360	12,500,000	1955E
Jordan ¹²	37,264	1,471,000	1956E	Vietnam (south)	65,726	12,366,000	1956E
Korea	85,266	28,600,000	1955E	Yemen	75,290	4,500,000	1953E
Laos	91,500	1,425,000	1955E	Yugoslavia	98,700	17,886,000	1956E
Latvia ³	24,600	2,000,000	1956E				

¹ E—Estimated; C—Census. ² Including Formosa (Taiwan), Manchuria and Tibet. ³ Actually Russian S.S.R. but still recognized by U.S. as independent country. ⁴ Including Eritrea. ⁵ Excluding East Berlin. ⁶ Excluding West Berlin. ⁷ Including Dodecanese. ⁸ Excluding Kashmir. ⁹ Excluding Netherlands New Guinea. ¹⁰ Including desert area of 80,583 sq. mi. ¹¹ Preliminary figure. ¹² Including Arab Palestine. ¹³ Excluding South-West Africa. ¹⁴ 108.7 acres. ¹⁵ Excluding tribal Indians.

America's Tallest Buildings

City	Building	Stories	Height, ft.	City	Building	Stories	Height, ft.
New York	Empire State	102	1,250	New York	Chanin	56	680
New York	Chrysler	77	1,046	New York	Lincoln	53	673
New York	60 Wall Tower	66	950	New York	Irving Trust	50	654
New York	Bk. of Manhattan	71	925	New York	General Electric	50	641
New York	R. C. A.	70	850	New York	Waldorf-Astoria	47	625
New York	Woolworth	60	792	New York	10 E. 40th St.	48	621
New York	City Bank-Farmers Trust	57	741	New York	New York Life	40	617
Cleveland	Terminal Tower	52	708	New York	Singer	47	612
New York	500 Fifth Avenue	60	700	Chicago	Board of Trade	44	605
New York	Metropolitan Life	50	700	Chicago	Prudential	41	602

Largest Cities of the World

(Exact rating of the cities of the world according to size is impossible because of the diversity of the years for which census or estimated population figures have been issued. Therefore, the rating shown in this table must be considered only approximate.)

City and country	Population	Year*	City and country	Population	Year*
1. London (Greater), England.....	8,346,137	1951C	11. Leningrad, U.S.S.R.....	2,814,000	1956E
2. New York, N. Y., U.S.A.....	7,891,957	1950C	12. Peking, China.....	2,768,149	1953C
3. Tokyo, Japan.....	6,966,499	1955C†	13. Rio de Janeiro, Brazil.....	2,725,274	1955E
4. Shanghai, China.....	6,204,417	1953C	14. Tientsin, China.....	2,693,831	1953C
5. Moscow, U.S.S.R.....	4,389,000	1956E	15. Calcutta, India.....	2,548,677	1951C
6. Chicago, Ill., U.S.A.....	3,620,962	1950C	16. Osaka, Japan.....	2,547,321	1955C†
7. Buenos Aires, Argentina.....	3,555,000	1955E	17. São Paulo, Brazil.....	2,500,000	1953E
8. Berlin, Germany.....	3,300,000	1955E	18. Cairo, Egypt.....	2,367,900	1952E
9. Paris, France.....	2,850,189	1954C	19. Mexico City, Mexico.....	2,234,795	1950C
10. Bombay, India.....	2,839,270	1951C	20. Los Angeles, Calif., U.S.A.....	2,104,663	1953C†

Other Large Foreign Cities (over 560,000)

City and country	Population	Year*	City and country	Population	Year*
Ahmedabad, India.....	788,333	1951C	Liverpool, England.....	789,532	1951C
Alexandria, Egypt.....	1,070,000	1952E	Lodz, Poland.....	670,000	1955E
Amsterdam, Netherlands.....	871,188	1957E	Madras, India.....	1,416,056	1951C
Antwerp, Belgium.....	611,035	1956E	Madrid, Spain.....	1,843,705	1956E
Athens, Greece.....	565,084	1951C	Manchester, England.....	703,175	1951C
Baku, U.S.S.R.....	901,000	1956E	Manila, Philippines.....	1,158,260	1952E
Bandung, Indonesia.....	870,346	1956E	Marseilles, France.....	661,492	1954C
Bangalore, India.....	778,977	1951C	Melbourne, Australia.....	1,595,300	1956E
Bangkok, Thailand.....	620,830	1947C	Milan, Italy.....	1,264,402	1951C
Barcelona, Spain.....	1,403,028	1956E	Montevideo, Uruguay.....	810,969	1954E
Birmingham, England.....	1,112,340	1951C	Montreal, Canada.....	1,094,448	1956C
Bogota, Colombia.....	765,360	1954E	Mukden, Manchuria.....	1,790,000	1952E
Brussels, Belgium.....	985,793	1956E	Munich, Germany.....	870,000	1953E
Bucharest, Rumania.....	1,236,906	1956C†	Nagoya, Japan.....	1,336,779	1955C†
Budapest, Hungary.....	1,781,085	1954E	Nanking, China.....	1,020,000	1952E
Canton, China.....	1,210,000	1952E	Naples, Italy.....	1,003,815	1951C
Capetown, South Africa.....	687,900	1956E	Novosibirsk, U.S.S.R.....	731,000	1956E
Caracas, Venezuela.....	749,303	1956E	Port Arthur, Kwantung.....	1,010,000	1952E
Casablanca, Morocco.....	682,388	1952C	Prague, Czechoslovakia.....	932,024	1948E
Chungking, China.....	2,000,000	1952E	Pusan, Korea.....	840,000	1955E
Cologne, Germany.....	629,200	1953E	Rangoon, Burma.....	711,520	1953C†
Copenhagen, Denmark.....	950,700	1956E	Recife, Brazil.....	560,000	1953E
Delhi, India.....	914,973	1951C	Riga, Latvia.....	565,000	1956E
Durban, U. of So. Af.....	591,300	1956E	Rome, Italy.....	1,606,739	1951C
Essen, Germany.....	624,100	1953E	Rotterdam, Netherlands.....	722,718	1957E
Frankfurt am Main, Germany.....	564,400	1953E	Saigon-Cholon, Vietnam.....	1,794,360	1956E
Genoa, Italy.....	678,200	1951C	Santiago, Chile.....	1,348,283	1952C
Glasgow, Scotland.....	1,089,555	1951C	Seoul, Korea.....	1,300,000	1955E
Gorki, U.S.S.R.....	876,000	1956E	Sian, China.....	628,499	1948C
Hague, The, Netherlands.....	606,728	1957E	Sofia, Bulgaria.....	600,000	1953E
Hamburg, Germany.....	1,658,000	1953E	Stalino, U.S.S.R.....	625,000	1956E
Harbin, Manchuria.....	1,000,000	1952E	Stockholm, Sweden.....	794,113	1956E
Havana, Cuba.....	785,455	1953C	Surabaya, Indonesia.....	980,905	1956E
Hyderabad, India.....	1,085,722	1951C	Sverdlovsk, U.S.S.R.....	707,000	1956E
Istanbul, Turkey.....	1,214,616	1955C†	Sydney, Australia.....	1,935,880	1956E
Jakarta, Indonesia.....	1,927,785	1956E	Taipei, Formosa.....	677,159	1955E
Johannesburg, U. of So. Af.....	1,006,500	1956E	Tashkent, U.S.S.R.....	778,000	1956E
Kanpur, India.....	705,383	1951C	Tblisi, U.S.S.R.....	635,000	1956E
Karachi, Pakistan.....	1,126,417	1951C	Teheran, Iran.....	118,976	1950E
Kharkov, U.S.S.R.....	877,000	1956E	Toronto, Canada.....	662,096	1956C
Kiev, U.S.S.R.....	991,000	1956E	Tsingtao, China.....	850,308	1948E
Kobe, Japan.....	765,435	1950C	Turin, Italy.....	711,492	1951C
Ku byshev, U.S.S.R.....	760,000	1956E	Victoria, Hong Kong.....	1,000,000	.....
Kyoto, Japan.....	1,204,017	1955C†	Vienna, Austria.....	1,766,102	1951C
Lahore, Pakistan.....	849,476	1951C	Warsaw, Poland.....	965,000	1955E
Leipzig, Germany.....	607,700	1953E	Wuhan, China.....	1,090,000	1952E
Lima, Peru.....	926,400	1952E	Yokohama, Japan.....	1,143,287	1955C†
Lisbon, Portugal.....	783,226	1950C			

* E—Estimated; C—Census. † Preliminary figures. ‡ Special census conducted under direction of U. S. Bureau of Census, at city expense. § Including suburbs.

Record Passages of Atlantic (Screw) Steamships since 1900

WESTWARD PASSAGES

Date	Ship and (flag*)	European port	Time			Speed knots	Sea miles
			D.	H.	M.		
1900,01	DEUTSCHLAND (G)	Southhampton	5	11	54	23.15	3,044
1907	LUSITANIA† (B)	Queenstown	4	11	40	24.00	....
1910			4	11	40	25.88	....
1908	MAURETANIA† (B)	"	4	10	41	26.06	....
1911	" (B)	"	4	10	41	26.06	....
1929	" (B)	Cherbourg	4	21	44	26.9	3,162
1929	BREMEN† (G)	"	4	17	42	27.83	....
1930	EUROPA† (G)	"	4	17	6	27.91	3,157
1933	REX† (I)	Gibraltar	4	13	58	28.92	3,181
1935	NORMANDIE† (F)	Bishop's Rock	4	3	2	29.98	3,015
1936	QUEEN MARY† (B)	"	4	0	27	30.14	2,939
1938			3	21	48	30.99	2,907
1952	UNITED STATES† (US)	Bishop's Rock	3	12	12	34.51	2,906

EASTWARD PASSAGES

1900,01	DEUTSCHLAND† (G)	Eddystone Lt.	5	7	38	23.51	3,082
1904	KAISER WILHELM II† (G)	Plymouth	5	8	16	23.58	....
1907	LUSITANIA† (B)	Queenstown	4	15	50	23.61	....
1910			4	15	50	25.57	....
1908	MAURETANIA† (B)	"	4	13	41	25.89	....
1911	" (B)	"	4	13	41	25.89	....
1924	" (B)	Cherbourg	5	1	49	26.25	3,198
1929	" (B)	Plymouth	4	17	50	27.22	3,098
1929			4	14	30	27.91	3,084
1933	BREMEN† (G)	Cherbourg	4	17	43	28.14	....
1933			4	16	15	28.51	3,199
1935	NORMANDIE† (F)	Bishop's Rock	4	3	25	30.35	....
1937			4	23	57	30.63	2,978
1936	QUEEN MARY† (B)	"	3	20	42	31.69	2,938
1938			3	10	40	35.59	3,144
1952	UNITED STATES† (US)	Bishop's Rock	3	10	40	35.59	3,144

* (B)—British; (G)—German; (I)—Italian; (F)—French. † Vessels which have held the Blue Riband. Source: Maritime Adm.

Leading Passenger Ships Calling at U. S. and Canadian Ports

Source: Lloyd's Register of International Shipping, except for starred items and number of passengers.

Line	Name of Ship	Flag	Length	Tonnage	Passengers*
American Banner.....	Atlantic	United States	564*	18,100*	900
American-Export.....	Constitution; Independence†	United States	682	23,719	1,000
American-President.....	President Cleveland; President Wilson†	United States	609	15,437	830
Canadian-Pacific.....	Empress of Britain; Empress of England†	British	600*	25,500*	1,050
Cunard.....	Mauretania	British	772	35,674	1,157
	Queen Elizabeth	British	1,031	83,673	2,233
	Queen Mary	British	1,019	81,237	1,957
	Caronia	British	715	34,172	932
French.....	Ile de France	French	793	44,356	1,202
	Liberté	French	937	51,839	1,497
Furness.....	Queen of Bermuda	British	580	22,501	731
Grace.....	Santa Rosa; Santa Paula†	United States	584	15,366	300
Hamburg-Atlantic.....	Hanseatic	German	672	30,029	1,250
Holland-America.....	Nieuw Amsterdam	Netherlands	759	36,667	1,228
	Statendam	Netherlands	645*	24,294*	750
Italian.....	Conte Biancamano	Italian	665	23,562	1,463
	Saturnia†	Italian	630	24,346	1,294
	Vulcania†	Italian	631	24,496	1,270
Matson.....	Matsonia	United States	604	18,170	770
Moore-McCormack.....	Argentina; Brasil†	United States	618	22,770	553†
Norwegian-American.....	Bergensfjord	Norwegian	578	17,000	890
Swedish-American.....	Gripsholm	Swedish	631	23,500	842
United States.....	America	United States	723	26,314	1,046
	United States	United States	917	53,329	1,928
Zim-Israel.....	Israel; Zion†	Israeli	501	10,500	312

† Sister ships.

SCIENCE



MEASURES AND WEIGHTS

UNITS OF LENGTH

Metric System

The meter was originally intended to be one ten-millionth of the earth's quadrant, a quadrant being one-quarter of a circumference. However, because of the difficulty of determining such a length with accuracy, this definition was abandoned. The meter is now considered to be the distance at 0°C between two microscopic marks on the International Prototype Meter, a platinum-iridium bar, kept by the International Bureau of Weights and Measures at Sèvres, France, a suburb of Paris.

In 1927, the International Conference on Weights and Measures adopted a secondary definition of the meter in terms of light-waves. According to this definition, one meter is equivalent to 1,553,164.13 wave lengths of the red light from cadmium.

Unit	Comparison	English equivalent
Millimeter (mm)	.001 meter	.0394 inch
Centimeter (cm)	.01 meter	.3937 inch
Decimeter (dm)	.1 meter	3.937 inches
Meter (m)		3.2808 feet
Dekameter (dkm)	10 meters	32.8083 feet
Hectometer (hm)	100 meters	328.0833 feet
Kilometer (km)	1000 meters	.62137 mile

English System

According to legend, the yard was established by Henry I as the distance from the point of his nose to the end of his thumb when his arm was outstretched. The British Imperial Yard was defined in 1878 by the Weights and Measures Act as the distance at 62°F between two fine lines on gold studs sunk in a bronze bar known as the "No. 1 Standard Yard." This is equivalent to .914399 meter. In the United States, the yard is defined in terms of the meter, using as a standard the U. S. Prototype Meter. According to this definition, the yard is 3600/3937 (or .914402) meter, slightly longer than the British Imperial Yard.

Unit	Comparison	Metric equivalent
Inch (in.)		25.4001 millimeters
Foot (ft)	12 inches	.3048 meter
Yard (yd)	36 inches	.9144 meter
	3 feet	
Rod (rd)	16½ feet	5.0292 meters
	5½ yards	
Furlong (fur.)	660 feet	201.1684 meters
	220 yards	
	40 rods	
Mile (mi)*	5280 feet	1.6093 kilometers
	* Known as statute mile	
	See nautical mile	
	under Miscellaneous Units.	
	320 rods	
	8 furlongs	

UNITS OF AREA

Metric System

English System

Unit	Comparison	English equivalent
Square millimeter (mm²)	.000001 m²	.0015 sq in.
Square centimeter (cm²)	.0001 m²	.155 sq in.
Square decimeter (dm²)	.01 m²	15.5 sq in.
Square meter (m²)*		10.7639 sq ft
Square dekameter (dkm²)†	100 m²	3.9537 sq rd
Square hectometer (hm²)‡	10,000 m²	2.471 acres
Square kilometer (km²)	1,000,000 m²	.3861 sq mi

Unit	Comparison	Metric equivalent
Square inch (sq in.)		6.4516 cm²
Square foot (sq ft)	144 sq in.	.0929 m²
Square yard (sq yd)	1296 sq in.	.8361 m²
	9 sq ft	
Square rod (sq rd)	272¼ sq ft	25.293 m²
	30¼ sq yds	
Acre	43,560 sq ft	.4047 ha
	4,840 sq yd	
	160 sq rd	
Square mile (sq mi)	27,878,400 sq ft	2.5900 km²
	3,097,600 sq yd	
	102,400 sq rd	
	640 acres	

* Also known as a centare (ca).

† Also known as an are (a).

‡ Also known as a hectare (ha).

UNITS OF VOLUME

Metric System

English System

Unit	Comparison	English equivalent
Cubic millimeter (mm³)	.000000001 m³	.00006 cu in.
Cubic centimeter (cm³)	.000001 m³	.061 cu in.
Cubic decimeter (dm³)	.001 m³	61.0234 cu in.
Cubic meter (m³)*		35.3145 cu ft

* Also known as a stère (s).

Unit	Comparison	Metric equivalent
Cubic inch (cu in.)		16.3872 cm³
Cubic foot (cu ft)	1728 cu in.	.0283 m³
Cubic yard (cu yd)	46,656 cu in.	.7646 m³
	27 cu ft	
Cord (cd)	128 cu ft	3.6246 m³

UNITS OF WEIGHT OR MASS

The term *mass* denotes the amount of matter contained in an object, while the term *weight* denotes the gravitational pull of the earth on the object. For practical purposes, the two terms are synonymous.

Metric System

The gram was originally intended to be equal to the mass of one cubic centimeter of pure water at 4°C. However, because of

the difficulty of making exact measurement, a small error was made; and it has since been found that a kilogram of pure water occupies 1.000028 cubic decimeters. The standard for the kilogram is a platinum-iridium cylinder, called the International Prototype Kilogram, which is kept at the International Bureau of Weights and Measures in France.

Unit	Comparison	Avdp.	English equivalents Troy	Apoth.
Milligram (mg)	.001 gram	.0154 grain	.0154 grain	.0154 grain
Centigram (cg)	.01 gram	.1543 grain	.1543 grain	.1543 grain
Decigram (dg)	.1 gram	1.5432 grains	1.5432 grains	1.5432 grains
Gram (g)		.0353 ounce	.0322 ounce	.0322 ounce
Dekagram (dkg)	10 grams	.3527 ounce	.3215 ounce	.3215 ounce
Hectogram (hg)	100 grams	3.5274 ounces	3.2151 ounces	3.2151 ounces
Kilogram (kg)	1000 grams	2.2046 pounds	2.6792 pounds	2.6792 pounds
Metric ton (t)	1000 kg	1.1023 tons*		

* Short tons. A metric ton is equivalent to .9842 long ton.

English System

The English System is complicated by the existence of three different kinds of weight: *avoirdupois weight*, used for common purposes; *troy weight*, used for weighing gold, silver, etc.; and *apothecaries weight*, used for making up medical prescriptions.

The British Imperial Pound (avoirdupois) is defined as the mass of a pure plat-

inum cylinder kept by the Standards Department of the Board of Trade. In the United States, the pound (avoirdupois) is defined in terms of the kilogram, using as a standard the U. S. Prototype Kilogram. According to this definition, the pound is equal to .4535924277 kilogram, making it infinitesimally smaller than the British Imperial Pound.

Avoirdupois Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Dram (dr avdp)	27.3438 grains	1.7718 grams
Ounce (oz avdp)	16 drams	28.3495 grams
	437.5 grains	
Pound (lb avdp)	7000 grains	4536 kilogram
	256 drams	
	16 ounces	
Hundredweight (cwt)*	100 pounds	45.3592 kilograms
Ton (tn)†	2000 pounds	.9072 metric ton

* Known as the short hundredweight, which is in use in the United States and Canada. Great Britain uses the long hundredweight (112 lb or 50.8024 kg).

† Known as the short ton, which is in use in the United States and Canada. Great Britain uses the long ton (2240 lb or 1.01605 metric tone).

Troy Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Pennyweight (dwt)	24 grains	1.5552 grams
Ounce (oz t)	480 grains	31.1035 grams
	20 pennyweights	
Pound (lb t)*	5760 grains	.3732 kilogram
	240 pennyweights	
	12 ounces	

* Declared illegal in Great Britain.

Apothecaries Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Scruple (s ap or ℥)	20 grains	1.296 grams
Dram (dr ap or ℥)	60 grains	3.8879 grams
	3 scruples	
Ounce (oz ap or ℥)	480 grains	31.1035 grams
	24 scruples	
	8 drams	
Pound (lb ap)	5760 grains	.3732 kilogram
	288 scruples	
	96 drams	
	12 ounces	

UNITS OF CAPACITY

Metric System

The liter is a secondary unit of capacity defined as the volume occupied by one kilogram of pure water at 4°C. It was intended that the liter should exactly equal one cubic decimeter, but as an error was made in measurement, has since been found to equal 1.000028 cubic decimeters.

Unit	Comparison	English equivalents	
		Liquid	Dry
Milliliter (ml)	.001 liter	.0338 fl oz	.0018 pt
Centiliter (cl)	.01 liter	.3381 fl oz	.0182 pt
Deciliter (dl)	.1 liter	3.3815 fl oz	.1816 pt
Liter (l)		1.0567 qt	.9081 qt
Dekaliter (dkl)	10 liters	2.6418 gal	1.1351 pk
Hectoliter (hl)	100 liters	26.4178 gal	2.8378 bu

English System

In Great Britain, the standard unit of capacity for measuring both liquid and dry commodities is the British Imperial Gallon. It is defined as the volume of ten pounds of pure water at 62°F and contains 277.418 cubic inches. The bushel is defined as eight gallons (2218.192 cubic inches).

In the United States, there are two separate standards. The unit for measuring liquids is the gallon, which is defined as 231 cubic inches; the unit for measuring dry commodities is the bushel, which is defined as 2150.42 cubic inches.

UNITS OF CIRCULAR MEASURE

Unit	Comparison
Second (")	
Minute (')	60 seconds
Degree (°)	60 minutes
Right angle	90 degrees
Straight angle	180 degrees
Circle	360 degrees

COMMON FORMULAS

Circumference

Circle: $C = \pi d$, in which π is 3.1416 and d the diameter.

Area

Triangle: $A = \frac{ab}{2}$, in which a is the base and b the height.

Square: $A = a^2$, in which a is one of the sides.

Rectangle: $A = ab$, in which a is the base and b the height.

Trapezoid: $A = \frac{h(a+b)}{2}$, in which h is the height, a the longer parallel side, and b the shorter.

Regular pentagon: $A = 1.720a^2$, in which a is one of the sides.

Regular hexagon: $A = 2.598a^2$, in which a is one of the sides.

Regular octagon: $A = 4.828a^2$, in which a is one of the sides.

Circle: $A = \pi r^2$, in which π is 3.1416 and r the radius.

Volume

Cube: $V = a^3$, in which a is one of the edges.

Rectangular prism: $V = abc$, in which a is the length, b the width, and c the depth.

Pyramid: $V = \frac{Ah}{3}$, in which A is the area of the base and h the height.

Liquid Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Minim (min or m)*		.0038	.0616 ml
Fluid dram (fl dr)	60 min	.2256	3.6966 ml
Fluid ounce (fl oz)	8 fl dr	1.8047	29.5729 ml
Gill (gi)	32 fl dr	7.2188	118.292 ml
	4 fl oz		
Pint (pt)	16 fl oz	28.875	.4732 liter
	4 gi		
Quart (qt)	32 fl oz	57.75	.9463 liter
	8 gi		
	2 pt		
Gallon (gal)	32 pt	231	3.7853 liters
	8 qt		
	4 qt		

* Approximately one drop.

Dry Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Pint (pt)		33.6003	.5506 liter
Quart (qt)	2 pints	67.2006	1.1012 liters
Peck (pk)	16 pints	537.605	8.8096 liters
	8 quarts		
Bushel (bu)	64 pints	2150.42	35.2383 liters
	32 quarts		
	4 pecks		

Cylinder: $V = \pi r^2 h$, in which π is 3.1416, r the radius of the base, and h the height.

Cone: $V = \frac{\pi r^2 h}{3}$, in which π is 3.1416, r the radius of the base, and h the height.

Sphere: $V = \frac{4\pi r^3}{3}$, in which π is 3.1416 and r the radius.

Miscellaneous

Speed per second acquired by falling body: $v = 32t$, in which t is the time in seconds.

Distance in feet traveled by falling body: $d = 16t^2$, in which t is the time in seconds.

Speed of sound in feet per second through any given temperature of air:

$V = \frac{1087\sqrt{273+t}}{16.52}$, in which t is the temperature Centigrade.

Cost per hour of operation of electrical device: $C = \frac{Wtc}{1000}$, in which W is the number of watts, t the time in hours, and c the cost per kilowatt-hour.

Conversion of matter into energy (Einstein's Theorem): $E = mc^2$, in which E is the energy in ergs, m the mass of the matter in grams, and c the speed of light in centimeters per second. ($c^2 = 9 \cdot 10^{20}$).

Abbreviations

The National Bureau of Standards recommends that the period be omitted after all abbreviations of units unless the

abbreviation forms an English word, and that the same abbreviation be used for both singular and plural.

FAHRENHEIT AND CENTIGRADE SCALES

Zero on the Fahrenheit scale represents the temperature produced by the mixing of equal weights of snow and common salt.

Absolute zero is theoretically the lowest possible temperature, the point at which all molecular motion would cease.

	F	C
Bolling point of water	212°	100°
Freezing point of water	32°	0°
Absolute zero	-459.6°	-273.1°

To convert Fahrenheit to Centigrade, subtract 32 and multiply by 5/9.

To convert Centigrade to Fahrenheit, multiply by 9/5 and add 32.

ROMAN NUMERALS

Roman numerals are expressed by letters of the alphabet and are rarely used today except for formality or variety.

There are three basic principles for reading Roman numerals:

1. A letter repeated once or twice repeats its value that many times. (XXX=30, CC=200, etc.).

2. One or more letters placed after another letter of greater value increases the greater value by the amount of the smaller. (VI=6, LXX=70, MCC=1200, etc.).

3. A letter placed before another letter of greater value decreases the greater value by the amount of the smaller. (IV=4, XC=90, CM=900, etc.).

Letter	Value	Letter	Value
I	1	LX	60
II	2	LXX	70
III	3	LXXX	80
IV	4	XC	90
V	5	C	100
VI	6	D	500
VII	7	M	1,000
VIII	8	V̄	5,000
IX	9	X̄	10,000
X	10	L̄	50,000
XX	20	C̄	100,000
XXX	30	D̄	500,000
XL	40	M̄	1,000,000
L	50		

SIMPLE INTEREST FOR \$100

To find the interest for any amount of money, move the decimal point of that amount two places to the left and multi-

ply by the figure obtained from the table.

For figuring simple interest, the year is considered to have 360 days.

	1 Day	7 Days	1 Month	3 Months	6 Months	1 Year
2%	\$.00556	\$.03889	\$.16667	\$.50000	\$1.00000	\$2.00000
2½%	.00694	.04861	.20833	.62500	1.25000	2.50000
3%	.00833	.05833	.25000	.75000	1.50000	3.00000
3½%	.00972	.06806	.29167	.87500	1.75000	3.50000
4%	.01111	.07778	.33333	1.00000	2.00000	4.00000
4½%	.01250	.08750	.37500	1.12500	2.25000	4.50000
5%	.01389	.09722	.41667	1.25000	2.50000	5.00000
5½%	.01528	.10694	.45833	1.37500	2.75000	5.50000
6%	.01667	.11667	.50000	1.50000	3.00000	6.00000
6½%	.01806	.12639	.54167	1.62500	3.25000	6.50000
7%	.01944	.13611	.58333	1.75000	3.50000	7.00000
8%	.02222	.15556	.66667	2.00000	4.00000	8.00000
9%	.02500	.17500	.75000	2.25000	4.50000	9.00000
10%	.02778	.19444	.83333	2.50000	5.00000	10.00000

MISCELLANEOUS UNITS

AGATE: Originally a measurement of type size (5½ points). Now equal to 1/14 inch. Used in printing for measuring column length.

ANGSTROM (A or λ): .0001 micron or .0000001 mm. Used for measuring length of light waves.

ASTRONOMICAL UNIT (A.U.): 93,003,000 miles, the average distance of the earth from the sun. Used in astronomy.

BALE: A large bundle of goods. In the U. S., the approximate weight of a bale of cotton is 500 pounds. The weight varies in other countries.

- BARREL (bbl):** For liquids, $31\frac{1}{2}$ gallons or 732.6 cubic inches. For dry commodities, except cranberries: 105 dry quarts or 705.6 cubic inches. For cranberries: 582.6 cubic inches.
- BOARD FOOT (fbm):** 144 cubic inches (12 in. x 12 in. x 1 in.). Used for lumber.
- BOLT:** 40 yards. Used for measuring cloth.
- CABLE:** About 100 fathoms or 600 feet. Used for measuring lengths of cable.
- CARAT (c):** 200 milligrams or 3.086 grains troy. Originally the weight of a seed of the carob tree in the Mediterranean region. Used for weighing precious stones. Also a measure of the purity of gold alloy, indicating how many parts out of 24 are pure. Eighteen carat gold, for example, is $\frac{3}{4}$ pure.
- CHAIN (ch):** a chain 66 feet or one-tenth of a furlong in length, divided into 100 parts called links. One mile is equal to 80 chains. Used in surveying and sometimes called Gunter's chain.
- CUBIT:** 18 inches or 45.72 cm. Derived from distance between elbow and tip of middle finger.
- ELL, ENGLISH:** $1\frac{1}{4}$ yards or $1\frac{1}{32}$ bolt. Used for measuring cloth.
- FATHOM (fath):** 6 feet or 1.8288 m. Derived from the distance to which a man can stretch his arms. Used for measuring cables and depths of water.
- FREIGHT TON (also called MEASURE-MENT TON):** 40 cubic feet of merchandise. Used for cargo freight.
- GREAT GROSS:** 12 gross or 1728.
- GROSS:** 12 dozen or 144.
- HAND:** 4 inches or 10.16 cm. Derived from the width of the hand. Used for measuring the height of horses at withers.
- HOGSHEAD (hhd):** 2 liquid barrels or 14.653 cubic inches.
- HORSEPOWER:** The power needed to lift 33,000 pounds a distance of one foot in one minute (about $1\frac{1}{2}$ times the power an average horse can exert). Used for measuring the power of steam engines, etc.
- KNOT:** Not a distance, but the rate of speed of one nautical mile per hour. Used for measuring speed of ships.
- LEAGUE:** Rather indefinite and varying measure, but usually estimated at 3 miles in English-speaking countries.
- LIGHT-YEAR:** 5,880,000,000,000 miles, the distance light travels in a year at the rate of 186,272 miles per second. (If an astronomical unit were represented by one inch, a light-year would be represented by about one mile.) Used for measurements in interstellar space.
- LINK:** One-hundredth of a chain or 7.92 inches. Used in surveying.
- MAGNUM:** Two-quart bottle. Used for measuring wine, etc.
- MICRON (μ):** .001 millimeter. Used for scientific measurements.
- MIL:** .001 inch. Used for measuring size of wire. The area of a cross-section of wire is usually expressed in circular mils, a circular mil being the area of a circle one mil in diameter. A wire one inch in diameter has a cross-section area of one million circular mils.
- MILLIMICRON (m μ):** .001 micron or .000001 mm. Used for scientific measurements.
- NAUTICAL MILE (also called GEOGRAPHICAL or SEA MILE):** Equal to a minute or $1/21600$ of a great circle of the earth. Length varies in different countries. In Great Britain, it is 6080 feet or 1853.2 meters, and in the United States, it is 6080.2 feet or 1853.248 meters. The International Hydrographic Bureau proposed in 1929 a length of 1852 meters or 6076.097 feet, which has been adopted by several countries.
- PARSEC:** Approximately 3.26 light-years or 19.2 trillion miles. Term is combination of first syllables of *parallax* and *second*, and distance is that of imaginary star when lines drawn from it to both earth and sun form a maximum angle or parallax of one second ($1/3600$ degree). Used for measuring interstellar distances.
- PI (π):** 3.14159265+. The ratio of the circumference of a circle to its diameter. For practical purpose, the value is used to four decimal places: 3.1416.
- PICA:** $\frac{1}{6}$ inch or 12 points. Used in printing for measuring column width, etc.
- PIPE:** 2 hogsheds. Used for measuring wine and other liquids.
- POINT:** .013837 (approximately $1/72$) inch or $1/12$ pica. Used in printing for measuring type size.
- QUINTAL:** 100,000 grams or 220.46 pounds avoirdupois.
- QUIRE:** Used for measuring paper. Sometimes 24 sheets but more often 25. There are 20 quires in a ream.
- REAM:** Used for measuring paper. Sometimes 480 sheets, but more often 500 sheets.
- SCORE:** 20 units.
- SPAN:** 9 inches or 22.86 cm. Derived from the distance between the end of the thumb and the end of the little finger when both are outstretched.
- STONE:** Legally 14 pounds avoirdupois in Great Britain.
- TOWNSHIP:** U. S. land measurement of almost 36 square miles. The south border is 6 miles long. The east and west borders, also 6 miles long, follow the meridians, making the north border slightly less than six miles long. Used in surveying.
- TUN:** 252 gallons, but often larger. Used for measuring wine and other liquids.

DECIMAL EQUIVALENTS OF COMMON FRACTIONS

$\frac{1}{2}$	.5000	$\frac{1}{32}$	.0313	$\frac{3}{41}$	.2727	$\frac{6}{11}$	.5455
$\frac{1}{3}$	.3333	$\frac{1}{64}$	.0156	$\frac{4}{5}$	.8000	$\frac{7}{8}$	.8750
$\frac{1}{4}$	.2500	$\frac{2}{3}$	.6667	$\frac{4}{7}$	.5714	$\frac{7}{9}$	.7778
$\frac{1}{5}$	.2000	$\frac{2}{5}$	.4000	$\frac{4}{9}$	.4444	$\frac{7}{10}$	.7000
$\frac{1}{6}$	.1667	$\frac{2}{7}$	.2857	$\frac{4}{11}$	.3636	$\frac{7}{11}$	.6364
$\frac{1}{7}$	.1429	$\frac{2}{9}$	.2222	$\frac{5}{6}$	.8333	$\frac{7}{12}$	.5833
$\frac{1}{8}$	.1250	$\frac{2}{11}$	.1818	$\frac{5}{7}$	.7143	$\frac{8}{9}$	.8889
$\frac{1}{9}$	.1111	$\frac{3}{4}$	.7500	$\frac{5}{8}$	.6250	$\frac{8}{11}$	.7273
$\frac{1}{10}$	.1000	$\frac{3}{5}$	.6000	$\frac{5}{9}$	.5556	$\frac{9}{10}$	.9000
$\frac{1}{11}$	.0909	$\frac{3}{7}$	.4286	$\frac{5}{11}$	.4545	$\frac{9}{11}$	.8182
$\frac{1}{12}$	.0833	$\frac{3}{8}$	.3750	$\frac{5}{12}$	.4167	$\frac{10}{11}$	.9091
$\frac{1}{16}$	.0625	$\frac{3}{10}$	.3000	$\frac{6}{7}$	.8571	$\frac{11}{12}$	.9167

Handy Conversion Factors

To change	To	Multi- ply by
acres	hectares	.4047
bushels (U. S.)	hectoliters	.3524
centimeters	inches	.3937
cubic feet	cubic meters	.0283
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
cubic yards	cubic meters	.7646
feet	meters	.3048
gallons (U. S.)	liters	3.7853
grains	grams	.0648
grams	grains	15.4324
grams	ounces avdp.	.0353
hectares	acres	2.4710
hectoliters	bushels (U. S.)	2.8378
inches	millimeters	25.4001
inches	centimeters	2.5400
kilograms	pounds ap or t	2.6792
kilograms	pounds avdp.	2.2046
kilometers	miles	.6214
liters	gallons (U. S.)	.2642
liters	pecks	.1135
liters	pints (dry)	1.8162
liters	pints (liquid)	2.1134
liters	quarts (dry)	.9081
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	yards	1.0936
metric tons	tons (long)	.9842
metric tons	tons (short)	1.1023
miles	kilometers	1.6093
millimeters	inches	.0394
ounces avdp.	grams	28.3495
pecks	liters	8.8096
pints (dry)	liters	.5506
pints (liquid)	liters	.4732
pounds ap or t	kilograms	.4536
pounds avdp.	kilograms	.4536
quarts (dry)	liters	1.1012
quarts (liquid)	liters	.9463
square feet	square meters	.0929
square meters	square feet	10.7639
square meters	square yards	1.1960
square yards	square meters	.8361
tons (long)	metric tons	1.0160
tons (short)	metric tons	.9072
yards	meters	.9144

Perfect Squares and Cubes, 1 to 2025

Number	Square root	Cube root	Number	Square root	Cube root
1	1	1	512	22	8
4	2	..	529	23	..
8	..	2	576	24	..
9	3	..	625	25	..
16	4	..	676	26	..
25	5	..	729	27	9
27	..	3	784	28	..
36	6	..	841	29	..
49	7	..	900	30	..
64	8	4	961	31	..
81	9	..	1000	..	10
100	10	..	1024	32	..
121	11	..	1089	33	..
125	..	5	1156	34	..
144	12	..	1225	35	..
169	13	..	1296	36	..
196	14	..	1331	..	11
216	..	6	1369	37	..
225	15	..	1444	38	..
256	16	..	1521	39	..
289	17	..	1600	40	..
324	18	..	1681	41	..
343	..	7	1728	..	12
361	19	..	1764	42	..
400	20	..	1849	43	..
441	21	..	1936	44	..
484	22	..	2025	45	..

Mean and Median

The mean, also called the average, of a series of quantities is obtained by finding the sum of the quantities and dividing it by the number of quantities. In the series 1,3,5,18,19,20,25, the mean or average is 13 —i.e., 91 divided by 7.

The median of a series is that point which so divides it that half the quantities are on one side, half on the other. In the above series, the median is 18.

The median often better expresses the common-run, since it is not, as is the mean, affected by an excessively high or low figure. In the series 1,3,4,7,55, the median of 4 is a truer expression of the common-run than is the mean of 14.

Chemical Elements

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence	Number of isotopes†	Discoverer	Date discovered
1	Hydrogen	H	1.0080	0.07‡	-259.14	-252.7	1	3	Cavendish	1766
2	Helium	He	4.003	0.15‡	<-272.2	-268.9	0	4	Ramsay	1895
3	Lithium	Li	6.940	0.534	186.	>1200.	1	5	Arfvedson	1817
4	Beryllium	Be	9.013	1.84	1350.	1500.	2	4	Vauquelin	1798
5	Boron	B	10.82	2.535§	2300.	2500.	3	5	Gay-Lussac and Thénard; Davy	1808
6	Carbon	C	12.011	2.25**	>3500.	4200.	2, 3 or 4	6	Prehistoric	.....
7	Nitrogen	N	14.008	0.810‡	-209.86	-195.3	3 or 5	6	Rutherford	1772
8	Oxygen	O	16.0000	1.14‡	-218.4	-183.00	2	6	Priestley	1774
9	Fluorine	F	19.00	1.14‡	-223.	-187.	1	4	Moissan	1886
10	Neon	Ne	20.183	0.90035 (g/10°C. 760mm)	-248.67	-245.9	0	5	Ramsay and Travers	1898
11	Sodium	Na	22.991	0.9287‡	97.5	880.	1	6	Davy	1807
12	Magnesium	Mg	24.32	1.741	651.	1110.	2	6	Davy	1808
13	Aluminum	Al	26.98	2.699‡	660.0	1800.	3	6	Wöhler	1827
14	Silicon	Si	28.09	2.42**	1420.	2600.	4	6	Berzelius	1824
15	Phosphorus	P	30.975	1.83 (white)	44.1	280.	3 or 5	6	Brand	1669
16	Sulfur	S	32.066	2.0-1	112.8	444.6	2, 4 or 6	7	Prehistoric	.....
17	Chlorine	Cl	35.457	1.507‡	-101.6	-34.6	1, 3, 5 or 7	7	Scheele	1774
18	Argon	A	39.944	1.423‡	-189.2	-185.7	0	8	Rayleigh and Ramsay	1894
19	Potassium	K	39.100	0.87	62.3	760.	1	8	Davy	1807
20	Calcium	Ca	40.08	1.54	810.	1170.	2	10	Davy	1808
21	Scandium	Sc	44.96	3.62 (10°C.)	1200.	2400.	3	8	Nilson	1879
22	Titanium	Ti	47.90	4.5	1800.	>3000.	3 or 4	8	Gregor	1791
23	Vanadium	V	50.95	5.69	1710.	3000.	2, 3, 4 or 5	8	Sefström	1830
24	Chromium	Cr	52.01	6.92	1615.	2200.	2, 3 or 6	8	Vauquelin	1798
25	Manganese	Mn	54.94	7.42	1260.	1900.	2, 3, 4, 6 or 7	6	Gahn	1774
26	Iron	Fe	55.85	7.85-88	1535.	3000.	2, 3 or 6	8	Prehistoric	.....
27	Cobalt	Co	58.94	8.9	1480.	2900.	2 or 3	9	Brandt	1735
28	Nickel	Ni	58.71	8.60-90	1452.	2900.	2 or 3	11	Cronstedt	1751
29	Copper	Cu	63.54	8.30-95	1083.	2300.	1 or 2	10	Prehistoric	.....
30	Zinc	Zn	65.38	7.04-16	419.43	907.	2	12	Identified by Marggraf	1746
31	Gallium	Ga	69.72	5.903	29.75	>1600.	2 or 3	11	Boisbaudran	1875
32	Germanium	Ge	72.60	5.46	958.5	2700.	4	13	Winkler	1886
33	Arsenic	As	74.91	5.73	814. (36 atm.)	615.	3 or 5	11	Albertus Magnus	1250§
34	Selenium	Se	78.96	4.3-8	220.	688.	2, 4 or 6	14	Berzelius	1818
35	Bromine	Br	79.916	3.12‡	-7.2	58.78	1, 3, 5 or 7	15	Balard	1826
36	Krypton	Kr	83.80	2.16‡	-169.	-151.8	0	19	Ramsay and Travers	1898
37	Rubidium	Rb	85.48	1.532	38.5	700.	1	16	Bunsen and Kirchhoff	1861
38	Strontium	Sr	87.63	2.50-58	800.	1150.	2	16	Davy	1808
39	Yttrium	Y	88.92	3.80	1490.	2500.	3	15	Gadolín	1794
40	Zirconium	Zr	91.22	6.44	1700.	>2900.	4	12	Klaproth	1789
41	Niobium*** (Columbium)	Nb	92.91	8.4	1950.	>3300.	3 or 5	10	Hatchett	1801
42	Molybdenum	Mo	95.95	9.01	2620±10	3700.	2, 3, 4, 5 or 6	13	Hjelme	1781
43	Technetium	Tc	99.*	11.487	2300.	.....	2, 3, 4 or 6	12††	Perrier and Segrè	1937
44	Ruthenium	Ru	101.1	12.06	2450.	>2700.	3, 4, 6 or 8	13	Klaus	1844
45	Rhodium	Rh	102.91	12.44	1955.	>2500.	3	10	Wollaston	1803
46	Palladium	Pd	106.4	12.16 (20°C.)	1555.	2200.	2 or 4	13	Wollaston	1803
47	Silver	Ag	107.880	10.503‡†	960.5	1950.	1	13	Prehistoric	.....
48	Cadmium	Cd	112.41	8.648	320.9	767.	2	14	Stromeyer	1817
49	Indium	In	114.82	7.28	155.	1450.	1 or 3	13	Reich and Richter	1863
50	Tin	Sn	118.70	7.29	231.83	2260.	2 or 4	18	Prehistoric	.....
51	Antimony	Sb	121.76	6.618	630.5	1380.	3 or 5	16	Early historic times	.....
52	Tellurium	Te	127.61	6.25**	452.	1390.	2, 4, or 6	17	von Reichenstein	1782
53	Iodine	I	126.91	4.94	113.5	184.35	1, 3, 5 or 7	18	Courtois	1811
54	Xenon	Xe	131.30	3.52‡	-140.	-109.1	0	23	Ramsay and Travers	1898

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence	Number of isotopes†	Discoverer	Date discovered
55	Cesium	Cs	132.91	1.873	26.	670.	1	18	Bunsen and Kirchhoff	1860
56	Barium	Ba	137.36	3.78	850.	1140.	2	17	Davy	1808
57	Lanthanum	La	138.92	6.5	826.	1800.	3	15	Mosander	1839
58	Cerium	Ce	140.13	6.9	770.	1400.	3 or 4	14	Klaproth; Berzelius and Hisinger	1803
59	Praseodymium	Pr	140.92	6.475	940.	3450.	3, 4 or 5	9	Auer von Welsbach	1885
60	Neodymium	Nd	144.27	6.96	840.	3300.	3	13	Auer von Welsbach	1885
61	Promethium	Pm	145.*	.....	.....	.....	3	12¶¶	Marinsky and Glendenin	1945
62	Samarium	Sm	150.35	7.7-8	1350.	1900.	2 or 3	14	Boisbaudran	1879
63	Europium	Eu	152.0	5.24	1100.	1700.	2 or 3	12	Demarcay	1901
64	Gadolinium	Gd	157.26	7.95	1350.	3000.	3	13	Magnac	1880
65	Terbium	Tb	158.93	8.33	1400.	2800.	3 or 4	10	Mosander	1843
66	Dysprosium	Dy	162.51	8.56	1475.	2600.	3	10	Boisbaudran	1886
67	Holmium	Ho	164.94	8.76	1475.	2700.	3	7	Soret	1878
68	Erbium	Er	167.27	9.06	1475.	2600.	3	9	Mosander	1843
69	Thulium	Tm	168.94	9.34	1500.	2400.	3	6	Cleve	1879
70	Ytterbium	Yb	173.04	9.01	824.	1800.	3	10	Magnac	1878
71	Lutetium	Lu	174.99	9.74	1650.	3500.	3 or 4	8	Urbain	1907
72	Hafnium	Hf	178.50	13.3	1700.	3200.	4	11	Coster and von Hevesy	1923
73	Tantalum	Ta	180.95	16.6	2850.	4100.	3 or 5	9	Ekeberg	1802
74	Tungsten (Wolfram)	W	183.86	18.6-19.1	3370.	5900.	2, 4, 5 or 6	12	d'Elhuyar	1783
75	Rhenium	Re	186.22	20.53 (20°C.)	3000.	.....	4	7	Noddack and Berg	1925
76	Osmium	Os	190.2	22.5	2700.	5300.	2, 3, 4 or 8	13	Tennant	1804
77	Iridium	Ir	192.2	22.42	2350.	4800.	3 or 4	7	Tennant	1804
78	Platinum	Pt	195.09	21.37	1755.	4300.	2 or 4	9	De Ulloa	1748
79	Gold	Au	197.0	19.3††	1063.0	2600.	1 or 3	12	Prehistoric	.....
80	Mercury	Hg	200.61	13.596†	-38.87	356.90	1 or 2	14	Prehistoric	.....
81	Thallium	Tl	204.39	11.86	303.5	1650.	1 or 3	13	Crookes	1861
82	Lead	Pb	207.21	11.347††	327.5	1620.	2 or 4	15	Prehistoric	.....
83	Bismuth	Bi	209.00	9.80	271.	1450.	3 or 5	17	Identified by Geoffroy	1753
84	Polonium	Po	210.	.....	.....	.....	.....	19	Curie	1898
85	Astatine	At	210.*	.....	470.	.....	1, 3, 5 or 7	15	Corson et al	1940
86	Radon	Rn	222.	9.739†	-71.	-61.8	0	12	Dorn	1900
87	Francium	Fr	223.*	.....	23.	.....	1	10	Perey	1939
88	Radium	Ra	226.05	6.0	960.	1140.	2	7	Curie	1898
89	Actinium	Ac	227.	.....	.....	.....	3	6	Debierne	1899
90	Thorium	Th	232.05	11.13	1845.	3000.	4	10	Berzelius	1828
91	Protactinium	Pa	231.	.....	.....	.....	5	9	Hahn and Meitner	1917
92	Uranium	U	238.07	18.7	1850.	3927.	3, 4 or 6	12	Klaproth	1789
93	Neptunium	Np	237.*	17.7	.....	.....	3, 4, 5 or 6	10¶¶	McMillan and Abelson	1940
94	Plutonium	Pu	242.*	.....	.....	.....	3, 4, 5 or 6	9¶¶	Seaborg et al	1940
95	Americium	Am	243.*	11.7	>850.	.....	3	6¶¶	Seaborg et al	1944
96	Curium	Cm	242.	.....	.....	.....	3	6¶¶	Seaborg et al	1944
97	Berkelium	Bk	249.*	.....	.....	.....	3	3¶¶	Seaborg et al	1950
98	Californium	Cf	249.*	.....	.....	.....	3 or 4	3¶¶	Seaborg et al	1950
99	Einsteinium	E	253.	.....	.....	.....	3	2¶¶	Seaborg et al	1950
100	Fermium	Fm	255.	.....	.....	.....	3	5¶¶	Ghiorso et al	1954
101	Mendelevium	Mv	256.*	.....	.....	.....	3	1¶¶	Studier et al	1954
102	Nobelium	No	253	.....	.....	.....	3	1¶¶	Ghiorso et al	1955
									Sw., Br., & Am.	1957

* Mass number of the isotope of longest known half-life.

† Isotopes are different forms of the same element, having the same atomic number but different atomic weights.

The number of isotopes given includes only those that are stable and natural occurring, excluding those marked ¶¶.

‡ Liquid. § Amorphous. ¶ Graphite. ** Crystalline. †† Compressed. ‡‡ Cast. §§ Exact date doubtful

—born 1193 and died 1280. ¶¶ Have been artificially produced. *** New name adopted by International Union of Chemistry, replacing old name in parentheses. < Is less than. > Is greater than.

NOTE: Figures in parentheses are tentative or theoretical. Quantities made of elements from 96 to 102 have been too small to establish melting points and similar facts.

The number of isotopes of each element is increased by discovery or by manufacture.

Scientific Inventions, Discoveries and Theories

Source: *Encyclopaedia Britannica*.

Inventions

- Adding machine, recording:** William S. Burroughs, 1888.
- Airplane:** Wilbur and Orville Wright, 1903.
- Air brake, railroad:** George Westinghouse, 1868.
- Air pump:** Otto von Guericke, 1650.
- Automobile:** (Product of inventions of many men. Gottlieb Daimler is frequently given credit, c.1887.)
- Bakelite:** Leo H. Baekeland, 1908.
- Balloon, hot-air:** Joseph and Jacques Montgolfier, 1783.
- Barometer:** Evangelista Torricelli, 1643.
- Camera, Kodak:** George Eastman, 1888.
- Carburetor, spray:** Charles E. Duryea, 1892.
- Cellophane:** J. E. Brandenberger, 1911.
- Celluloid:** John W. and I. S. Hyatt, 1870.
- Clock, pendulum:** Christiaan Huygens, 1656.
- Converter, Bessemer:** William Kelly, 1851. (Patent bought by Sir Henry Bessemer, who made a similar invention in 1856.)
- Cotton gin:** Eli Whitney, 1793.
- Cyanide:** Nikodem Caro and Adolf Frank, 1905.
- Cyclotron:** Ernest O. Lawrence, 1931.
- Daguerreotype process:** Louis J. M. Daguerre, 1839.
- Diesel engine:** Rudolf Diesel, 1897.
- Dynamite:** Alfred B. Nobel, 1862.
- Dynamo:** Michael Faraday, 1831.
- Dynamo, industrial:** Zénobe Gramme, 1872.
- Electromagnet:** William Sturgeon, 1823.
- Electroplating:** Luigi Brugnatelli, 1805.
- Elevator, passenger:** Elisha G. Otis, 1857.
- Elevator safety device:** Elisha G. Otis, 1852.
- Engine, high-speed internal-combustion:** Gottlieb Daimler, 1885.
- Filament, tungsten:** Irving Langmuir, 1915.
- Flying shuttle:** John Kay, 1733.
- Food preservation, hermetically sealed (meat):** François (Nicolas) Appert, 1810, with little success.
- Fountain pen:** Lewis E. Waterman, 1884. (First successful one.)
- Frequency modulation (FM):** Edwin H. Armstrong, 1933.
- Guncotton:** Christian Schönbein, 1845.
- Gyrocompass:** Elmer A. Sperry, 1905.
- Gyroscope:** Léon Foucault, 1852.
- Helicopter:** Igor I. Sikorsky, 1909; Louis C. Bréguet equipped first passenger carrying helicopter, 1909; first successful modern helicopter, Heinrich K. J. Focke, 1937-41.
- Hydroplane:** Charles M. Ramus propounded idea around 1870; Glenn H. Curtiss, 1911.
- Jet propulsion (aircraft):** Sir Frank Whittle, 1930.
- Lamp, electric incandescent:** (Inventor uncertain; Thomas A. Edison, who made a lamp in 1879, is sometimes credited.)
- Lens, bifocal:** Benjamin Franklin, c.1760.
- Lightning rod:** Benjamin Franklin, 1752.
- Linotype machine:** Ottmar Mergenthaler, 1885 (patent); first used, 1886.
- Lithography:** Aloys Senefelder, 1796.
- Machine gun:** Richard J. Gatling, 1861.
- Match, friction:** John Walker, 1827.
- Mercury-vapor lamp:** Peter C. Hewitt, 1912.
- Microscope, compound:** Zacharias Janssen, 1590.
- Microscope, electron:** Vladimir Zworykin et al., 1939.
- Miner's safety lamp:** Sir Humphry Davy, 1815.
- Monotype machine:** Tolbert Lanston, 1887.
- Motion pictures:** Thomas A. Edison, 1893.
- Motion pictures, sound:** (Product of various inventions. First picture with synchronized musical score: *Don Juan*, Warner Bros., 1926. First picture with spoken dialogue: *The Jazz Singer*, Warner Bros., 1927.)
- Motor, A-C:** Nikola Tesla, 1892.
- Ophthalmoscope:** Hermann von Helmholtz, 1851.
- Phonograph:** Thomas A. Edison, 1877.
- Photography, color:** Gabriel Lippmann, 1891.
- Power loom:** Edmund Cartwright, 1785.
- Printing, movable-type:** Johann Gutenberg (?), c.1440.
- Printing press, rotary:** Richard Hoe, 1847.
- Radar:** Gregory Breit & Merle A. Tuve, 1925.
- Radio:** (Product of various inventions. First practical system of wireless telegraphy: Guglielmo Marconi, 1895.)
- Radio telephone:** Lee De Forest, 1906.
- Radio tube, diode:** Sir John Ambrose Fleming, 1904.
- Radio tube, triode:** Lee De Forest, 1906.
- Rayon:** George Andemars (first known patent), 1855; perfected by Sir Joseph W. Swan, 1883.
- Reaper:** Cyrus McCormick, 1834.
- Revolver:** Samuel Colt, 1835.
- Rifle, automatic:** John M. Browning, 1918.
- Rubber, vulcanized:** Ch. Goodyear, 1839.
- Screw propeller:** John Ericsson, 1837.
- Self-starter, automobile:** Charles F. Kettering, 1911.
- Sewing machine:** Elias Howe, 1846 (patented). Idea of lock-stitch machine conceived independently by Walter Hunt, 1832-4.
- Spinning frame:** Sir Richard Arkwright, 1769.
- Spinning jenny:** James Hargreaves, 1764.
- Spinning mule:** Samuel Crompton, 1779.
- Steamboat:** Robert Fulton, 1807. (First commercially successful one in U. S.)

- Steam engine:** James Watt, 1765. (First practical one.)
Tank, military: Sir Ernest Swinton, 1914.
Telegraph, electromagnetic recording: Samuel F. B. Morse, 1837.
Telephone: Alexander Graham Bell, 1876.
Telescope: Hans Lippershey (?), c.1608.
Television: Successful demonstration by J. L. Baird in England and C. F. Jenkins in U. S., in early 1920's. (First commercial TV: July 1, 1941, over WNBT, New York.)
Thermometer: Galileo Galilei, 1593.
Tire, pneumatic: John B. Dunlop, 1888.
Tractor, caterpillar: Benjamin Holt, 1900.
Transformer, electric: Wm. Stanley, 1885.
Transistor: John Bardeen, William Shockley and Walter Brattain, 1948.
Typewriter: First practical one invented by Christopher Sholes, Carlos Glidden and Samuel W. Soule in 1867; patented by Sholes in 1868.
Zeppelin: Ferdinand von Zeppelin, 1900.
- Discoveries and Theories**
- Adrenaline, isolation of:** Jokichi Takamine, 1901.
Aluminum manufacture by electrolytic action: Charles M. Hall, 1886.
Antitoxin, diphtheria: Emil von Behring, 1890.
Atom smashing with slow neutrons: Enrico Fermi, 1934. (Experiment repeated by Lise Meitner and Otto Hahn in 1938.)
Atomic numbers: Henry Moseley, 1913.
Atomic theory: John Dalton, 1803.
Aureomycin: Benjamin M. Duggar, 1948.
Bacteria: Anton van Leeuwenhoek, 1683.
Blood, circulation of: William Harvey, 1628.
Classification of plants and animals: Carolus Linnaeus, 1737-53.
Combustion, nature of: Antoine Lavoisier, 1777.
Conditioned reflex: Ivan Pavlov, c.1910.
Deuterium (heavy hydrogen): Harold C. Urey, 1931.
Displacement of water, principle of: Archimedes, 3rd century B.C.
Electromagnetic waves: Heinrich Hertz, 1886.
Electron: Sir Joseph J. Thomson, 1897.
Electron, wave nature of: Louis Victor de Broglie, 1924.
Ether, first used as anesthetic: Crawford W. Long, 1842.
Evolution by natural selection: Charles Darwin, 1859.
Falling bodies, law of: Galileo Galilei, 1590.
Gases, laws governing: Joseph Gay-Lussac, 1809.
Gravitation, law of: Sir Isaac Newton, 1687.
Helium on sun: Sir Joseph Lockyer, 1868.
Heredity, laws of: Gregor Mendel, 1865.
Induction, electric: Joseph Henry, 1828.
Insulin: Sir Frederick G. Banting and J. J. R. MacLeod, 1922.
Intelligence testing, modern: Alfred Binet and Theodore Simon, 1905.
Isotopes, mass spectra of: Francis W. Aston, 1919.
Isotopes, theory of: Frederick Soddy, 1912.
Light, electromagnetic theory of: James Clerk Maxwell, 1873.
Light, velocity of: Olaus Römer, 1675.
Molecular hypothesis: Amadeo Avogadro, 1811.
Neutron: James Chadwick, 1932.
Ohm's Law: Georg S. Ohm, 1827.
Ozone: Christian Schönbein, 1839.
Penicillin: Sir Alexander Fleming, 1929.
Periodic table: Dmitri Mendeleev, 1869.
Positron: Carl D. Anderson, 1932.
Proton: Ernest Rutherford, 1919.
Psychoanalysis: Sigmund Freud, c.1904.
Quantum mechanics: Werner Heisenberg, 1925.
Quantum theory: Max von Planck, 1901.
Rabies preventive: Louis Pasteur, 1885.
Radioactivity: Antoine Becquerel, 1896.
Radioactivity, artificial: Frédéric and Irène Joliot-Curie, 1934.
Relativity, theories of: Albert Einstein, 1905-53.
Salk antipolio vaccine: Jonas E. Salk, announced successful 1955.
Schick test of susceptibility to diphtheria: Béla Schick, 1913.
Secretin, isolation of: Sir William Bayliss and Ernest Starling, 1902.
Soda manufacture from salt: Ernest Solvay, 1861.
Solar system, heliocentricity of: Nicolaus Copernicus, 1530. (Also Aristarchus of Samos, 3rd century B.C.)
Spectrum analysis: Robert Bunsen and Gustav Kirchhoff, 1859.
Sulfa drugs as bactericides: Gerhard Domag, 1932.
Surgery, antiseptic: Sir Joseph Lister, 1867.
Tuberculosis bacillus: Robert Koch, 1882.
Vaccination: Edward Jenner, 1796.
Virus, crystalized: Wendell M. Stanley, 1935.
Vitamin A: Elmer V. McCollum and M. Davis, 1912-14.
Vitamin B: Elmer V. McCollum, 1915-16.
Vitamin C: A. Holst and T. Froehlich, 1912.
Vitamin D: Elmer V. McCollum, 1922.
Vitamin D, irradiated: Harry Steenbock, 1924.
Wassermann test for syphilis: August von Wassermann, 1906.
Water, synthesis of: Henry Cavendish, 1781.
Wilson Cloud Chamber: Charles T. R. Wilson, 1911.
X-rays: Wilhelm Roentgen, 1895.

Communicable Diseases

Source: *Control of Communicable Diseases in Man*, an official report of the American Public Health Assn.

Disease	Incubation period*	Period of communicability
Chickenpox (varicella).....	2 to 3 weeks	From 1 day before appearance of vesicles to 6 days after.
Common cold.....	12 to 72 hours; usually 24 hrs.	From 1 day before onset to 5 days after.
Conjunctivitis.....	1 to 3 days	During course of active infection.
Diphtheria.....	2 to 5 days	Usually 2 weeks or less; seldom more than 4 weeks.
Dysentery, amebic.....	3 to 4 weeks (varies widely)	During infection; possibly for years if untreated.
Food poisoning: Botulism.....	Within 18 hours	Not applicable.
Salmonella infection.....	6 to 48 hours in epidemics	3 days to 3 weeks (extremely variable).
Staphylococcus intoxication.....	½ to 4 hours	Not applicable.
German measles (rubella)....	14 to 21 days; usually 18	At least 4 days after onset of catarrhal symptoms.
Gonorrhea.....	3 to 9 days; sometimes 14	Indefinitely unless treated.
Impetigo contagiosa.....	Within 5 days; often 2	Until lesions are healed.
Influenza.....	1 to 3 days	Probably 1 week after onset.
Measles (rubeola).....	10 days (to onset) 14 days (to rash)	From 4 days before rash appears to 5 days after.
Meningitis, meningococcal.....	2 to 10 days	1 day after appropriate medication.
Mumps.....	12 to 26 days; commonly 18	From 2 days before onset to 9 days after, or until swelling subsides.
Pneumonia: Bacterial.....	Believed to be 1 to 3 days	Unknown.
Virus.....	Believed to be 7 to 21 days; commonly 12	Unknown.
Poliomyelitis.....	7 to 21 days; commonly 12	From late incubation to first few days after onset; persists in feces for 3 to 6 weeks or more.
Rabies (hydrophobia).....	2 to 6 weeks or longer	Rarely communicated from man to man.
Rheumatic fever.....	Not applicable†	Not known to be communicable.
Scarlet fever and streptococcal sore throat.....	2 to 5 days	During incubation and clinical illness, about 10 days. May last for months in untreated patients.
Smallpox.....	7 to 16 days; commonly 12	From first symptoms to disappearance of scabs and crusts, a period of 2 to 3 weeks.
Syphilis.....	10 days to 10 weeks; usually 3 weeks	Variable and not definitely known.
Tetanus.....	4 days to 3 weeks	Not communicable from man to man.
Trichinosis.....	2 to 28 days after eating infected meat; usually 9 days	Not directly transmitted from man to man.
Tuberculosis.....	4 to 6 weeks (to primary phase)	As long as tubercle bacilli are discharged by patient.
Typhoid fever.....	1 to 3 weeks	As long as typhoid bacilli appear in excreta; 2 to 5% of patients become permanent carriers.
Whooping cough (pertussis)...	Commonly 7 days, almost uniformly within 10 days, and not exceeding 21 days	From 7 days after exposure to 3 weeks after onset of typical paroxysms.

* Usual limits. † Usually precipitated by a previous infection.

Gestation, Incubation and Longevity of Certain Animals

Source: T. Donald Carter, American Museum of Natural History.

Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)	Animal	Gestation and incubation, in days & (average)	Longevity, in years & (record exceptions)
Ass.....	340-385	18-20 (46)	Kangaroo.....	c. 39	10-12 (16)
Bear.....	180-240*	15-20 (34)	Lion.....	105-111	10 (29)
Cat.....	52-65	10-12 (21)	Mare.....	304-419 (336)	20-25 (50+)
Chicken.....	21	7-8 (14)	Monkey.....	149-179* (164)	12-15* (29)
Cow.....	c. 280	9-12 (25)	Mouse.....	19-31*	1-3 (4)
Deer.....	140-246*	10-15 (26)	Parakeet (Budgerigar).....	17-20 (18)	8 (12+)
Dog.....	55-70 (63)	10-12 (24)	Pigeon.....	18	10-12 (39)
Duck.....	21-35* (28)	10 (15)	Rabbit.....	27-36 (31)	6-8 (15)
Elephant.....	515-760* (628)	30-40 (98)	Rat.....	21-30 (22)	3 (5)
Ewe.....	146-161 (151)	12 (16)	Sow.....	101-130 (115)	10 (22)
Goat.....	135-163 (150)	12 (17)	Squirrel.....	28-35	8-9 (15)
Groundhog.....	28-35	4-7	Vixen (fox).....	51-60	8-10 (14)
Guinea pig.....	63-71	3 (6)	Whale.....	276-365*	
Hamster, golden.....	15-19	2	Wolf.....	63	10-12 (16)
Hippopotamus.....	220-255	30 (49+)	Woman.....	270+ or -	72†

* Depending on kind. † Latest life expectancy charts list this age.

CONTRACT BRIDGE

By B. JAY BECKER

Top Record-Holder in Masters' Individual Championship Play

Contract bridge was invented by Harold S. Vanderbilt in 1925. The new game was a great improvement over the parent game, auction bridge, which in turn had been derived from whist, a card game of two centuries standing.

Contract bridge developed rapidly but did not catch fire with the public until the late Ely Culbertson, a promotion genius of the first order, staged a simulated grudge match against Sidney Lenz in 1931. Newspapers everywhere carried daily stories on the hectic match refereed by Lieutenant (now General) Alfred M. Gruenther.

Various systems of bidding sprang up during the first years of contract bridge but after five or six years of experimentation the best features of each were joined to form what is essentially the system in use today. Among the leading contributors to the evolution of present day methods were Vanderbilt, Culbertson, Lenz, Work, Whitehead, Reith, Goren, Blackwood, Roth, Stayman.

Today, bridge is regarded as almost a social necessity. Hundreds of textbooks have been written and many newspapers carry daily bridge columns. It is estimated there are 25 million bridge players in the United States. Sectional, national and international tournaments are conducted by the American Contract Bridge League, governing body of bridge.

EVALUATION

For many years, the chief method of determining the value of a hand was by means of a scale called honor tricks. Culbertson was chief proponent of this method. High cards are, for example, valued as follows:

A = 1 H. T.	K-x = $\frac{1}{2}$ H. T.
K-Q = 1 H. T.	Q-J-x = $\frac{1}{2}$ H. T.
A-K = 2 H. T.	Q or J = plus value
A-Q = $1\frac{1}{2}$ H. T.	

During the past ten years the honor trick method has been largely supplanted by the point count method. Point count was devised by Milton Work back in the auction days, but was not generally accepted until Charles H. Goren took a prominent part in bringing it to the attention of the public. The experts had played point count for years, but to the lesser players it was relatively unknown. The introduction of point count has done a great deal to raise the level of bidding skill for the average player.

Point count evaluation divides into two categories: high card points and distributional points. With balanced hands—hands without a void or singleton—the high card point count is both practical and accurate and reflects essentially the true value of a hand.

HIGH CARD POINTS

Ace = 4 points	Queen = 2 points
King = 3 points	Jack = 1 point
Total points in deck	= 40
Points in each suit	= 10
Points in average hand	= 10
Points required for game	= 26
Points required for small slam	= 33
Points required for grand slam	= 37

Opening notrump bids are characterized by distribution which is usually 4-3-3-3, 4-4-3-2, or in some cases 5-3-3-2 and strength or stoppers in all four suits. The required point count is:

Opening 1 N. T. = 16 to 18 points
Opening 2 N. T. = 22 to 24 points
Opening 3 N. T. = 25 to 27 points

With 19, 20 or 21 points, bid one of a suit and jump in notrump over partner's response. Responses to an opening one notrump bid, with a balanced hand:

Raise 1 N. T. to 2 N. T. with 8 or 9 points
Raise 1 N. T. to 3 N. T. with 10 to 14 points
Raise 1 N. T. to 6 N. T. with 17 to 20 points
Raise 1 N. T. to 7 N. T. with 21 points or more

DISTRIBUTIONAL POINT COUNT

Two methods of evaluating distributional points are in general use. According to the Goren method 3 points are taken for each void, 2 points for each singleton and 1 point for each doubleton. These are added to the high card point count to determine the value of the hand.

According to the Karpin method 1 point is taken for each card in a suit above four. These points are then added to the high card points to determine the value of the hand.

As new information is obtained during the bidding, the original distributional point evaluation may rise or fall. Distributional point count should not be rigidly followed. It is a flexible yardstick.

OPENING SUIT BIDS

The opening bid of one in a suit ranges usually from 12 to 21 points. All hands containing 14 high card points are compulsory opening bids. Distributional factors are important in evaluating a hand. Distribution is a key factor in every deal.

In choosing the suit with which to open the bidding, the longest suit is usually bid first. When two suits are of equal length the higher ranking suit is generally bid first. When there are three biddable four-card suits the suit that is chosen is the one directly beneath the singleton in rank.

RESPONSES TO SUIT BIDS

Any new suit named by the responding hand compels the opening bidder to bid

again. With 6 points or more the partner of the opening bidder of one in a suit must make a response. He may name a new suit, respond in notrump or raise the opening bidder's suit.

The single raise of the opening bidder's suit denotes adequate trump support and 6 to 9 points which include distributional values. The response of one notrump denotes a balanced hand without adequate trump support with 6 to 9 points in high cards. The response of one of a new suit denotes 6 to 16 points. The response of two in a new suit denotes 10 to 16 points.

The jump raise of the opening bidder's suit, for example 1 spade—3 spades, denotes at least four trumps and 13 to 15 points. The response of 2 notrump to the opening bid of one in a suit denies adequate trump support and represents a balanced hand with 13 to 15 points in high cards, plus stoppers in the remaining three suits. The response of 3 notrump indicates 16 to 18 points and a balanced hand with stoppers in the other three suits.

BIDDABLE SUITS

Any five card suit is biddable. Any four card suit which includes four high card points is biddable.

REBIDS BY OPENING BIDDER

Having opened with one of a suit the opening bidder may identify a minimum type of hand by rebidding one notrump or by repeating his previous suit in minimum terms. A rebid by the opening bidder, where he goes one level higher than necessary, represents a strong hand containing at least 17 points.

OPENING BID OF TWO IN A SUIT

This bid is forcing to game. It represents a hand which for practical purposes can make a game by itself. The best method in use to determine whether a hand ranks as a two bid is to count the losers, and if the hand then contains enough winners to ensure a game the hand qualifies as a two bid. The response to a two bid is 2 notrump unless the responder has more than 6 points in which case he either raises his partner, bids his own suit or jumps in notrump.

OVERCALLS

The bid over an adverse opening bid, when made in the one level, usually ranges in high cards between 7 and 13 points and includes a good suit. The overcall in the two level is made with a strong suit and usually has about 12 or 13 points in high cards. In making overcalls, the number of winning tricks which are probable is more important than the point count. The overcaller should not be subject to a penalty in excess of 500 points in the event he should be doubled. The informative double over an adverse opening bid represents at least an opening bid of its own.

BLACKWOOD SLAM CONVENTION

After the partners have agreed definitely or inferentially upon a suit as trump the bid of 4 notrump by either of them is an artificial bid requesting partner to name the number of Aces he has. The responses are as follows:

- No Aces — 5 Clubs
- 1 Ace — 5 Diamonds
- 2 Aces — 5 Hearts
- 3 Aces — 5 Spades
- 4 Aces — 5 Notrump

When the response is followed by a 5 notrump bid it should be construed as a request for the number of Kings. The responses are as follows:

- No Kings — 6 Clubs
- 1 King — 6 Diamonds
- 2 Kings — 6 Hearts
- 3 Kings — 6 Spades
- 4 Kings — 6 Notrump

STAYMAN NOTRUMP CONVENTION

The response of 2 Clubs to partner's opening one notrump bid is an artificial bid requesting the opener to bid a four card major suit. If the opening bidder has no four card major he replies by bidding 2 diamonds with a minimum one notrump bid, or 2 notrump with a maximum notrump bid.

IN GENERAL

Bridge is a partnership game. In bidding, each player tries to represent to his partner the strength or weakness of his hand. Exact bidding will produce exact results. Weak hands are bid weakly; strong hands are bid strongly. Forcing bids must be respected. Partners' bids should be trusted more than the opponents' bids.

High card point count in balanced hands is very accurate. Distributional point count is sometimes treacherous and common sense should be employed where the distributional point count does not appear to give an accurate evaluation of the true value of the hand.

In counting defensive tricks against a suit contract, honor tricks provide a more reliable gauge than point count.

Remember that the important thing in bridge is the number of tricks that are taken, not the number of points a side has. Remember also that all the rules in bridge are made to be broken at the appropriate time. There is no such word as "never" when it comes to stating a general principle. You can be dealt 635,013,559,600 different hands in bridge. No general rules can be expected to cover all possibilities. Imagination and ingenuity are important qualities to be exercised.

Large penalties should be avoided. A game should not be bid unless there is nearly an even chance of making it; a small slam should not be bid unless there is an even chance at least to make it; a grand slam should not be bid unless there is at least a 2 to 1 probability of making it. Play probabilities, and not hunches. Bridge is a scientific game.

★ CELEBRATED PERSONS ★

Prepared with the Cooperation of

MARQUIS-WHO'S WHO Inc., Publishers of WHO'S WHO IN AMERICA

Locations and dates are those of birth. A name in parentheses is the original name or form of the name of the individual.

The listings in this section have been gathered from various sources, including the subjects thereof, but neither *Who's Who in America* nor the *Information Please Almanac* can guarantee the accuracy of each individual item. We have learned to accept the date and place of birth that any lady or gentleman claims for herself or himself and not argue about it. Where we have not been able to learn the date and place of birth, we have not attempted to invent the items.

- AARON, Hank (Henry) (baseball player); Mobile, Ala., Feb. 5, 1934.
- ABBOTT, Bud (William) (actor); Asbury Park, N. J., Oct. 2, 1898.
- ABBOTT, George (director & dramatist); Forestville, N. Y., June 25, 1889.
- ABEL, Walter (actor); St. Paul, Minn., June 6, 1898.
- ACHESON, Dean (U. S. statesman); Middletown, Conn., Apr. 11, 1893.
- ADAMS, Franklin P. (author); Chicago, Ill., Nov. 15, 1881.
- ADAMS, Samuel Hopkins (novelist); Dunkirk, N. Y., Jan. 26, 1871.
- ADAMS, Sherman (Asst. to Pres., U. S.); East Dover, Vt., Jan. 8, 1899.
- ADCOCK, Joe (baseball player); Coushatta, La., Oct. 30, 1927.
- ADDAMS, Charles (cartoonist); Westfield, N. J., Jan. 7, 1912.
- ADENAUER, Konrad (Chancellor, Ger. Fed. Rep.); Cologne, Ger., Jan. 5, 1876.
- ADLER, Larry (harmonica player); Baltimore, Md., Feb. 10, 1914.
- ADLER, Luther (actor); New York City, May 4, 1903.
- AHERNE, Brian (actor); Kings Norton, Eng., May 2, 1902.
- AIKEN, Conrad (poet); Savannah, Ga., Aug. 5, 1889.
- ALBANESE, Licia (soprano); Bari, It., July 22, 1913.
- ALBERT, Eddie (Eddie Albert Heimberger) (actor); Rock Island, Ill., Apr. 22, 1908.
- ALDA, Robert (actor); New York City, Feb. 26, 1914.
- ALDINGTON, Richard (poet & novelist); Hampshire, Eng., 1892.
- ALDRICH, Winthrop W. (U. S. diplomat); Providence, R. I., Nov. 2, 1885.
- ALI, Mohammed (Pakistani statesman & diplomat); Barisal, E. Bengal, Oct. 19, 1909.
- ALLEN, Gracie (comedienne); San Francisco, Calif., July 26, 1906.
- ALLEN, Mel (sports announcer); Birmingham, Ala., Feb. 14, 1913.
- ALLEN, Steve (comedian); New York City, Dec. 26, 1921.
- ALLYSON, June (Jan Allyson) (actress); New York City, Oct. 7, 1923.
- ALSO, Joseph W., Jr. (journalist); Avon, Conn., Oct. 11, 1910.
- ALSOP, Stewart (journalist); New York City, May 17, 1914.
- ALSTON, Walter (baseball manager); Butler Co., Ohio, Dec. 1, 1911.
- AMECHE, Don (actor); Kenosha, Wis., May 31, 1908.
- AMORY, Cleveland (author); Nahant, Mass., Sept. 2, 1917.
- AMOS (Freeman F. Gosden) (actor); Richmond, Va., May 5, 1899.
- ANDERSON, Eddie. See Rochester.
- ANDERSON, Judith (actress); Adelaide, Austr., Feb. 10, 1898.
- ANDERSON, Marian (contralto); Philadelphia, Pa., Feb. 17, 1902.
- ANDERSON, Maxwell (dramatist); Atlantic, Pa., Dec. 15, 1888.
- ANDREWS, Dana (actor); Collins, Miss., Jan. 1, 1912.
- ANDREWS, Julie (Julia Wells) (actress); Walton-on-Thames, Eng., Oct. 1, 1935.
- ANDREWS, Roy Chapman (zoologist & explorer); Beloit, Wis., Jan. 26, 1884.
- ANDY (Charles J. Correll) (actor); Peoria, Ill., Feb. 2, 1890.
- ANGELES, Victoria de los (Victoria Gamez Cima) (soprano); Barcelona, Sp., Nov. 1, 1923.
- ANGELI, Pier (actress); Cagliari, It., June 19, 1932.
- ANTONELLI, Johnny (baseball player); Rochester, N. Y., Apr. 12, 1930.
- ARCARO, Eddie (jockey); Cincinnati, Ohio, Feb. 19, 1916.
- ARCHIPENKO, Alexander (sculptor); Kiev, Rus., May 30, 1887.
- ARDEN, Elizabeth (cosmetician); Ontario, Can., 1891.
- ARDEN, Eve (Eunice Quedens) (actress); Mill Valley, Calif.

- ARLEN**, Harold (Hyman Arluck) (composer); Buffalo, N. Y., Feb. 15, 1905.
- ARMSTRONG**, Henry (boxer); St. Louis, Mo., Dec. 12, 1912.
- ARMSTRONG**, Louis (trumpeter); New Orleans, La., July 4, 1900.
- ARNAZ**, Desi (Desiderio) (actor & band leader); Santiago, Cuba, Mar. 2, 1917.
- ARNO**, Peter (cartoonist); New York City, Jan. 8, 1904.
- ARRAU**, Claudio (pianist); Chillán, Chile, Feb. 6, 1904.
- ASHBURN**, Richie (baseball player); Tilden, Nebr., Mar. 19, 1927.
- ASTAIRE**, Fred (Frederick Austerlitz) (dancer & actor); Omaha, Neb., May 10, 1899.
- ATKINSON**, Brooks (drama critic); Melrose, Mass., Nov. 28, 1894.
- ATKINSON**, Ted (jockey); Toronto, Ont., Can., June 17, 1916.
- ATTLEE**, Clement R. (British statesman); London, Eng., Jan. 3, 1883.
- AUDEN**, W. H. (Wystan Hugh Auden) (poet); York, Eng., Feb. 21, 1907.
- AUTRY**, Gene (actor); Tioga, Tex., Sept. 29, 1907.
- AYRES**, Lew (actor); Minneapolis, Minn., Dec. 28, 1908.
- BACALL**, Lauren (actress); New York City, Sept. 16, 1924.
- BACCALONI**, Salvatore (basso); Rome, It., Apr. 14, 1900.
- BACKHAUS**, Wilhelm (pianist); Leipzig, Ger., Mar. 26, 1884.
- BAER**, Max (boxer); Omaha, Nebr., Feb. 11, 1909.
- BAILEY**, Pearl (singer); Newport News, Va., Mar. 29, 1918.
- BAINTER**, Fay (actress); Los Angeles, Calif., 1893.
- BAKER**, Josephine (singer); St. Louis, Mo., 1907.
- BALANCHINE**, George (ballet director); St. Petersburg, Rus., Jan. 9, 1904.
- BALDWIN**, Faith (novelist); New Rochelle, N. Y., Oct. 1, 1893.
- BALL**, Lucille (actress); Jamestown, N. Y., Aug. 6, 1911.
- BANKHEAD**, Tallulah (actress); Huntville, Ala., Jan. 31, 1903.
- BANKS**, Ernie (baseball player); Dallas, Tex., Jan. 31, 1931.
- BANNISTER**, Roger (mile runner); Harrow, Eng., Mar. 24, 1929.
- BARBER**, Red (Walter L.) (sports announcer); Columbus, Miss., Feb. 17, 1908.
- BARBER**, Samuel (composer); West Chester, Pa., Mar. 9, 1910.
- BARBIROLLI**, Sir John (orchestra conductor); London, Eng., Dec. 2, 1899.
- BARRYMORE**, Ethel (actress); Philadelphia, Pa., Aug. 15, 1879.
- BARTHELMESS**, Richard (actor); New York City, May 9, 1897.
- BARTHOLOMEW**, Freddie (actor); London, Eng., Mar. 28, 1924.
- BARTON**, James (actor); Gloucester, N. J., Nov. 1, 1890.
- BARUCH**, Bernard (financier); Camden, S. C., Aug. 19, 1870.
- BASIE**, Count (William) (band leader); Red Bank, N. J., Aug. 21, 1906.
- BATCHELOR**, Clarence Daniel (cartoonist); Osage City, Kans.
- BATISTA y ZALDIVAR**, Fulgencio (Cuban statesman); Banes, Cuba, Jan. 16, 1901.
- BAUDOUIN** (King, Belgium); Palace of Laeken, Belg., Sept. 7, 1930.
- BAUER**, Hank (Henry) (baseball player); E. St. Louis, Ill., July 31, 1922.
- BAUM**, Vicki (novelist); Vienna, Aus., Jan. 24, 1896.
- BAXTER**, Anne (actress); Michigan City, Ind., May 7, 1923.
- BECK**, David (labor leader); Stockton, Calif., June 16, 1894.
- BEEBE**, William (zoologist); Brooklyn, N. Y., July 29, 1877.
- BEECHAM**, Sir Thomas (orchestra conductor); St. Helens, Eng., Apr. 29, 1879.
- BEGLEY**, Ed (Edward) (actor); Hartford, Conn., Mar. 25, 1901.
- BEHRMAN**, S. N. (Samuel N.) (dramatist); Worcester, Mass., June 9, 1893.
- BELAFONTE**, Harry (singer); New York City, Mar. 1, 1927.
- BELLAMY**, Ralph (actor); Chicago, Ill., June 17, 1905.
- BEMELMANS**, Ludwig (essayist); Meran, Tirol, Apr. 27, 1898.
- BENDIX**, William (actor); New York City, Jan. 14, 1906.
- BEN-GURION**, David (David Green) (Israeli statesman); Pióńsk, Pol., Oct. 16, 1886.
- BENNETT**, Joan (actress); Palisades, N. J., Feb. 27, 1910.
- BENNETT**, Robert Russell (composer); Kansas City, Mo., June 15, 1894.
- BENNY**, Jack (Benny Kubelsky) (comedian); Waukegan, Ill., Feb. 14, 1894.
- BENTON**, Thomas Hart (painter); Neosho, Mo., Apr. 15, 1889.
- BERENSON**, Bernard (art historian & critic); Lithuania, June 26, 1865.
- BERGEN**, Edgar (ventriloquist); Chicago, Ill., Feb. 16, 1903.
- BERGMAN**, Ingrid (actress); Stockholm, Swed., 1917.
- BERKSON**, Seymour (publisher); Chicago, Ill., Jan. 30, 1905.
- BERLE**, Milton (Milton Berlinger) (comedian); New York City, July 12, 1908.
- BERLIN**, Irving (Isidore Baline) (song writer); Temum, Russia, May 11, 1888.
- BERLIN**, Richard E. (publisher); Omaha, Nebr., Jan. 18, 1894.
- BERNSTEIN**, Leonard (composer & conductor); Lawrence, Mass., Aug. 25, 1918.
- BERRA**, Yogi (Lawrence) (baseball player); St. Louis, Mo., May 12, 1925.
- BERRYMAN**, James T. (cartoonist); Washington, D. C., June 8, 1902.
- BETTIS**, Valerie (actress & dancer); Houston, Tex., Dec. 20, 1919.
- BEVAN**, Aneurin (British Labour leader); Tredegar, Eng., Nov. 1897.
- BICKFORD**, Charles (actor); Cambridge, Mass.
- BING**, Rudolf (opera executive); Vienna, Aus., Jan. 9, 1902.
- BJÖRLING**, Jussi (tenor); Stora Tuna Dalarna, Swed., Feb. 2, 1911.

- BLACKMER**, Sidney (actor); Salisbury, N. C., July 13, 1898.
- BLAIK**, Earl H. (football coach); Detroit, Mich., Feb. 15, 1897.
- BLAINE**, Vivian (actress); Newark, N. J., Nov. 21, 1921.
- BLITZSTEIN**, Marc (composer); Philadelphia, Pa., Mar. 2, 1905.
- BLOCH**, Ernest (composer); Geneva, Switz., July 24, 1880.
- BLOOM**, Claire (actress); London, Eng., Feb. 15, 1931.
- BOHLEN**, Charles E. (writer, former Ambassador to USSR); Clayton, N. Y., Aug. 30, 1904.
- BOHR**, Niels (physicist); Copenhagen, Den., Oct. 7, 1885.
- BOLGER**, Ray (actor); Dorchester, Mass., Jan. 10, 1906.
- BOLT**, Tommy (golfer); Hawarth, Okla., March 31, 1919.
- BOONE**, Pat (Charles) (singer); Jacksonville, Fla., June 1, 1934.
- BOONE**, Richard (actor); Los Angeles, California.
- BOOTH**, Shirley (Thelma Booth Ford) (actress); New York City, Aug. 30, 1907.
- BORGE**, Victor (pianist & comedian); Copenhagen, Den., Jan. 3, 1909.
- BORGNINE**, Ernest (actor); Hamden, Conn., Jan. 24, 1917.
- BORI**, Lucrezia (Lucrecia Borja González de Riancho) (soprano); Valencia, Sp., Dec. 24, 1887.
- BORZAGE**, Frank (movie director); Salt Lake City, Utah, Apr. 23, 1893.
- BOSWELL**, Connie (singer); New Orleans, La., Dec. 3.
- BOWEN**, Catherine Drinker (biographer); Haverford, Pa., Jan. 1, 1897.
- BOWEN**, Elizabeth (novelist); Dublin, Ire., June 7, 1899.
- BOWLES**, Chester (former Ambassador to India); Springfield, Mass., Apr. 5, 1901.
- BOWLES**, Paul (novelist); New York City, Dec. 30, 1910.
- BOYD**, William (actor); Cambridge, Ohio, June 5, 1898.
- BOYER**, Charles (actor); Flégeac, Fr., Aug. 28, 1899.
- BOYER**, Ken (baseball player); Liberty, Mo., May 20, 1931.
- BOYLE**, Kay (novelist & poet); St. Paul, Minn., Feb. 19, 1903.
- BRACKEN**, Eddie (actor); Astoria, N. Y., Feb. 7, 1920.
- BRADLEY**, Omar N. (U. S. general); Clark, Mo., Feb. 12, 1893.
- BRAGAN**, Bob (baseball manager); Birmingham, Ala., Oct. 20, 1917.
- BRAILOWSKY**, Alexander (pianist); Kiev, Rus., Feb. 16, 1896.
- BRANDO**, Marlon (actor); Omaha, Nebr., Apr. 3, 1924.
- BRAQUE**, Georges (painter); Argenteuil, Fr., May 13, 1882.
- BRAZZI**, Rossano (actor); Bologna, It., Sept. 18, 1916.
- BRENNAN**, Walter (actor); Lynn, Mass., July 25, 1894.
- BRENNAN**, William J., Jr. (U. S. jurist); Newark, N. J., Apr. 25, 1906.
- BRISCOE**, Robert (Irish statesman); Dublin, Ire., Sept. 25, 1894.
- BRITTEN**, Benjamin (composer); Lowestoft, Eng., Nov. 22, 1913.
- BROOKS**, Van Wyck (literary critic); Plainfield, N. J., Feb. 16, 1886.
- BROWN**, Cecil (radio commentator); New Brighton, Pa., Sept. 14, 1907.
- BROWN**, Joe E. (actor); Holgate, Ohio, July 28, 1892.
- BROWN**, John Mason (drama critic); Louisville, Ky., July 3, 1900.
- BROWN**, Pamela (actress); London, Eng., July 8, 1918.
- BROWN**, Vanessa (Smylla Brind) (actress); Vienna, Aus., Mar. 24, 1928.
- BROWNELL**, Herbert, Jr. (former Attorney General, U. S.); Peru, Nebr., Feb. 20, 1904.
- BRUNDAGE**, Avery (sports executive); Detroit, Mich., Sept. 28, 1887.
- BRYNNER**, Yul (actor); Sakhalin (an island off Japan), July 11, 1917.
- BRYSON**, Lyman (educator); Valentine, Nebr., July 12, 1888.
- BUCK**, Pearl S. (novelist); Hillsboro, W. Va., June 26, 1892.
- BUHL**, Bob (baseball player); Saginaw, Mich., Aug. 12, 1928.
- BULGANIN**, Nikolai A. (Soviet statesman); Nizhni-Novgorod, Rus., June 11, 1895.
- BUNCHE**, Ralph J. (U. N. official); Detroit, Mich., Aug. 7, 1904.
- BURDETTE**, Lou (baseball player); Nitro, W. Va., Nov. 22, 1926.
- BURKE**, Adm. Arleigh A. (Ch. of Naval Oper., U. S.); Boulder, Colo., Oct. 19, 1901.
- BURKE**, Billie (actress); Washington, D. C., Aug. 7, 1886.
- BURNS**, George (Nathan Birnbaum) (comedian); New York City, Jan. 20, 1896.
- BURROWS**, Abe (playwright & producer); New York City, Dec. 18, 1910.
- BURTON**, Harold H. (U. S. jurist); Jamaica Plain, Mass., June 29, 1888.
- BURTON**, Richard (actor); Wales, 1926.
- BUSH**, Vannavar (engineer); Everett, Mass., Mar. 11, 1890.
- BUTLER**, Richard Austen (British statesman); Attock Serai, India, Dec. 9, 1902.
- BUTTONS**, Red (Aaron Chwatt) (comedian); New York City, Feb. 5, 1919.
- BYINGTON**, Spring (actress); Colorado Springs, Colo., Oct. 17, 1898.
- CADMUS**, Paul (painter & etcher); New York City, Dec. 17, 1904.
- CAESAR**, Sid (comedian); Yonkers, N. Y., Sept. 8, 1922.
- CAGNEY**, James (actor); New York City, July 17, 1904.
- CAIN**, James M. (novelist); Annapolis, Md., July 1, 1892.
- CALDER**, Alexander ("mobile" sculptor); Lawnton, Pa., July 22, 1898.
- CALDWELL**, Erskine (novelist); White Oak, Ga., Dec. 17, 1903.
- CALDWELL**, Taylor (novelist); Preswiche, Eng., Sept. 7, 1900.
- CALHOUN**, Rory (Francis Durgin) (actor); Los Angeles, Calif., Aug. 8, 1923.
- CALLAS**, Maria (soprano); New York City, Dec. 4, 1923.

- CALLOWAY**, Cab (band leader); Rochester, N. Y., Dec. 25, 1907.
- CAMPANELLA**, Roy (baseball player); Homestead, Pa., Nov. 19, 1921.
- CAMUS**, Albert (novelist); Algiers, 1913.
- CANBY**, Henry Seidel (literary critic); Wilmington, Del., Sept. 6, 1878.
- CANIFF**, Milton (cartoonist); Hillsboro, Ohio, Feb. 28, 1907.
- CANTOR**, Eddie (Edward Iskowitz) (comedian); New York City, Jan. 31, 1892.
- CAPOTE**, Truman (novelist); New Orleans, La., Sept. 30, 1924.
- CAPP**, Al (cartoonist); New Haven, Conn., Sept. 28, 1909.
- CAPRA**, Frank (movie director); Palermo, Sicily, May 18, 1897.
- CAREY**, MacDonald (actor); Sioux City, Iowa, Mar. 15, 1913.
- CARLE**, Frankie (pianist); Providence, R. I., Mar. 15, 1903.
- CARLSON**, Richard (actor); Albert Lea, Minn., Apr. 29, 1912.
- CARMICHAEL**, Hoagy (song writer); Bloomington, Ind., Nov. 22, 1899.
- CARNEY**, Art (actor); Mt. Vernon, N. Y.
- CARNOVSKY**, Morris (actor); St. Louis, Mo., 1898.
- CARON**, Leslie (actress); Paris, Fr., July 1, 1931.
- CARRADINE**, John (actor); New York City, Feb. 5, 1906.
- CARROLL**, Leo G. (actor); Weedon, Eng.
- CARROLL**, Paul Vincent (dramatist); Dundalk, Ire., July 10, 1900.
- CARSON**, Jack (actor); Carman, Can., Oct. 27, 1910.
- CARSON**, Rachel (science writer); Springdale, Pa., May 27, 1907.
- CASADESUS**, Robert (pianist); Paris, Fr., Apr. 7, 1899.
- CASALS**, Pablo (cellist); Vendrell, Sp., Dec. 29, 1876.
- CAVALLERO**, Carmen (band leader); New York City, May 6, 1913.
- CHAGALL**, Marc (painter); Vitebsk, Rus., July 7, 1887.
- CHAMPION**, Gower (dancer & actor); Geneva, Ill., June 22, 1921.
- CHAMPION**, Marge (dancer & actress); Los Angeles, Calif., Sept. 2, 1923.
- CHANDLER**, Jeff (Ira Grossel) (actor); Brooklyn, N. Y., Dec. 15, 1918.
- CHANNING**, Carol (comédienne); Seattle, Wash., Jan. 31, 1921.
- CHAPLIN**, Charles (comedian); London, Eng., Apr. 16, 1889.
- CHARISSE**, Cyd (Tula Finklea) (actress, dancer); Amarillo, Tex., Mar. 8, 1923.
- CHARLOTTE** (Grand Duchess of Luxemburg); Luxemburg, Jan. 23, 1896.
- CHASE**, Ilka (actress); New York City, Apr. 8, 1905.
- CHASE**, Stuart (writer); Somersworth, N. H., Mar. 8, 1888.
- CHÁVEZ**, Carlos (composer); near Mexico City, Mex., June 13, 1899.
- CHAYEFSKY**, Paddy (Sidney) (dramatist); New York City, Jan. 29, 1923.
- CHEVALIER**, Maurice (actor); Paris, Fr., Sept. 12, 1888.
- CHIANG** Kai-shek (President, Nat. China); Feng-hwa, China, Oct. 31, 1887.
- CHIRICO**, Giorgio de (painter); Volos, Gr., July 10, 1888.
- CHOU** En-lai (Premier, Comm. China); Huaiyin, China, 1898.
- CHRISTIE**, Agatha (novelist); Torquay, Eng., 1892.
- CHURCHILL**, Sarah (actress); London, Eng., Oct. 7, 1914.
- CHURCHILL**, Sir Winston S. (British statesman); Oxfordshire, Eng., Nov. 30, 1874.
- CLAIR**, René (René Chomette) (movie director); Paris, Fr., Nov. 11, 1898.
- CLAIRE**, Ina (Ina Fagan) (actress); Washington, D. C., Oct. 15, 1892.
- CLARK**, Bobby (comedian); Springfield, Ohio, June 16, 1888.
- CLARK**, Dane (actor); New York City, Feb. 18, 1915.
- CLIBURN**, Van (Harvey Lavan Cliburn, Jr.) (pianist); Shreveport, La., July 12, 1934.
- CLIFT**, Montgomery (actor); Omaha, Nebr., Oct. 17, 1920.
- CLOETE**, Stuart (novelist); Paris, Fr., July 23, 1897.
- CLOONEY**, Rosemary (singer); Maysville, Ky., May 23, 1928.
- CLURMAN**, Harold (stage director); New York City, Sept. 18, 1901.
- COBB**, Lee J. (actor); New York City, Dec. 8, 1911.
- COBB**, Ty (Tyrus R.) (baseball player); Banks Co., Ga., Dec. 17, 1886.
- COBURN**, Charles (actor); Savannah, Ga., June 19, 1877.
- COCA**, Imogene (comédienne); Philadelphia, Pa.
- COCTEAU**, Jean (poet & dramatist); Maisons-Laffitte, Fr., July 5, 1891.
- COLBERT**, Claudette (Lily Chauchoin) (actress); Paris, Fr., Sept. 13, 1905.
- COLE**, Nat King (Nathaniel Adams Coles) (singer); Montgomery, Ala., Mar. 17, 1919.
- COLLINGE**, Patricia (actress); Dublin, Ire., Sept. 20, 1894.
- COMMAGER**, Henry S. (historian); Pittsburgh, Pa., Oct. 25, 1902.
- COMO**, Perry (Pierino) (singer); Canonsburg, Pa., May 18, 1913.
- COMPTON**, Arthur H. (physicist); Wooster, Ohio, Sept. 10, 1892.
- CONANT**, James B. (scientist & educator); Dorchester, Mass., Mar. 26, 1893.
- CONLEY**, Donald (baseball player); Muskogee, Okla., Nov. 10, 1930.
- CONNELLY**, Marc (dramatist); McKeesport, Pa., Dec. 13, 1890.
- CONNOLLY**, Maureen (tennis player); San Diego, Calif., Sept. 17, 1934.
- CONROY**, Frank (actor); Derby, Eng., Oct. 14, 1890.
- CONTE**, Richard (actor); New York City, Mar. 24, 1914.
- COOGAN**, Jackie (actor); Los Angeles, Calif., Oct. 26, 1914.
- COOK**, Donald (actor); Portland, Oreg., Sept. 26, 1901.
- COOKE**, Alistair (news commentator); Manchester, Eng., Nov. 20, 1908.
- COOPER**, Gary (Frank) (actor); Helena, Mont., May 7, 1901.

- COOPER, Jackie (actor); Los Angeles, Calif., Sept. 15, 1922.
- COPLAND, Aaron (composer); Brooklyn, N. Y., Nov. 14, 1900.
- COREY, Wendell (actor); Dracut, Mass., Mar. 20, 1914.
- CORNELL, Katharine (actress); Berlin, Ger., Feb. 16, 1898.
- CORRELL, Charles J. *See* Andy
- COSTAIN, Thomas Bertram (novelist); Brantford, Ont., Can., May 8, 1885.
- COSTELLO, Lou (Louis Cristillo) (actor); Paterson, N. J., Mar. 6, 1908.
- COTTEN, Joseph (actor); Petersburg, Va., 1905.
- COTY, René (Pres., France), Le Havre, Fr., Mar. 20, 1882.
- COWARD, Noel (dramatist & actor); Teddington, Eng., Dec. 16, 1899.
- COWLES, Gardner (publisher); Algona, Iowa, Jan. 31, 1903.
- COWLEY, Malcolm (critic & editor); Bel-sano, Pa., Aug. 24, 1898.
- COX, Wally (Wallace Maynard Cox) (come-dian); Detroit, Mich., Dec. 6, 1924.
- COZZENS, James Gould (novelist); Chicago, Ill., Aug. 19, 1903.
- CRAIN, Jeanne (actress); Barstow, Calif., May 25, 1925.
- CRAWFORD, Broderick (actor); Philadelphia, Pa., Dec. 9, 1911.
- CRAWFORD, Joan (Lucille LeSueur) (ac-tress); San Antonio, Tex., Mar. 23, 1908.
- CRONIN, A. J. (Archibald J. Cronin) (nov-elist); Cardross, Scot., July 19, 1896.
- CRONIN, Joe (baseball executive); San Fran-cisco, Calif., Oct. 12, 1906.
- CRONYN, Hume (actor); London, Ont., Can.
- CROSBY, Bing (Harry) (actor & singer); Ta-coma, Wash., May 2, 1904.
- CROSBY, Bob (band leader & actor); Spo-kane, Wash., Aug. 23, 1913.
- CROSS, Milton (radio announcer); New York City, Apr. 16, 1897.
- CROUSE, Russel (dramatist); Findlay, Ohio, Feb. 20, 1893.
- CUGAT, Xavier (orchestra leader); Barce-lona, Sp., Jan. 1, 1900.
- CUKOR, George (movie director); New York City, July 7, 1899.
- CUMMINGS, E. E. (Edward Estlin Cummings) (poet); Cambridge, Mass., Oct. 14, 1894.
- CUMMINGS, Robert (actor); Joplin, Mo., June 9, 1910.
- CURTICE, Harlow H. (industrialist); Easton Rapids, Mich., Aug. 15, 1893.
- CURTIS, Tony (actor); New York City, June 3, 1925.
- CURTIZ, Michael (movie director); Budapest, Hung., Dec. 24, 1888.
- CURZON, Clifford (pianist); London, Eng., May 18, 1907.
- DAHL, Arlene (actress); Minneapolis, Minn., Aug. 11.
- DAILEY, Dan (actor); New York City.
- DALI, Salvador (painter); Figueras, Sp., May 11, 1904.
- DALY, John (news commentator); Johannes-burg, S. Afr., Feb. 20, 1914.
- DAMONE, Vic (singer); Brooklyn, N. Y., June 12, 1928.
- DANDRIDGE, Dorothy (actress); Cleveland, Ohio.
- DANILOVA, Alexandra (dancer); Peterho-Rus.
- DARCEL, Denise (actress); Paris, Fr., 192.
- DARK, Alvin (baseball player); Comanche, Okla., Jan. 7, 1923.
- DARNELL, Linda (actress); Dallas, Tex.
- DARRIEUX, Danielle (actress); Bordeaux, Fr., May 1, 1917.
- DAVIES, Marion (actress); New York City, Jan. 1, 1900.
- DAVIS, Bette (actress); Lowell, Mass., Apr. 5, 1908.
- DAVIS, Joan (actress); St. Paul, Minn., Jun. 29, 1912.
- DAVIS, Sammy, Jr. (singer); New York City, Jan. 1926.
- DAVIS, Stuart (painter); Philadelphia, Pa., Dec. 7, 1894.
- DAY, Dennis (singer); New York City, Mar. 21, 1917.
- DAY, Doris (Doris von Kappelhoff) (singer) Cincinnati, Ohio, Apr. 3, 1924.
- DAY, Lorraine (Lorraine Johnson) (actress) Roosevelt, Utah, Oct. 13, 1920.
- DEAN, Dizzy (Jay Hanna Dean) (basebal-player and announcer); Lucas, Ark., Jan. 16, 1911.
- DE GAULLE, Charles (French statesman) Lille, Fr., Nov. 22, 1890.
- DE HAVILLAND, Olivia (actress); Tokyo, Jap., July 1, 1916.
- DEMARET, Jim (golfer); Houston, Tex., May 10, 1910.
- de MILLE, Agnes (choreographer); New York City.
- de MILLE, Cecil B. (movie director); Ash-field, Mass., Aug. 12, 1881.
- DEMPSEY, Jack (William H.) (boxer); Man-assa, Colo., June 24, 1894.
- DERAIN, André (painter); Chatou, Fr., June 10, 1880.
- DE SICA, Vittorio (actor & movie director) Sora, It., July 7, 1901.
- DE VALERA, Éamon (Irish statesman); New York City, Oct. 14, 1882.
- DEVINE, Andy (actor); Flagstaff, Ariz., Oct. 7, 1905.
- DEWEY, Thomas E. (U. S. statesman) Owosso, Mich., Mar. 24, 1902.
- DE WILDE, Brandon (actor); New York City, Apr. 9, 1942.
- DICKSON, Murry (baseball player); Tracy, Mo., Aug. 21, 1916.
- DIETRICH, Marlene (Maria Magdalena von Losch) (actress); Berlin, Dec. 27, 1904.
- DILLON, C. Douglas (U. S. diplomat); Gen-eva, Switz., Aug. 21, 1909.
- DIMAGGIO, Joe (baseball player); Martinez, Calif., Nov. 25, 1914.
- DISNEY, Walt (animated cartoonist); Chi-cago, Ill., Dec. 5, 1901.
- DODDS, Harold Willis (educator); Utica, Pa., June 28, 1889.
- DOHNÁNYI, Ernst von (composer); Press-burg, Slovakia, July 27, 1877.
- DOLIN, Anton (dancer & choreographer) Slinfold, Sussex, Eng., July 27, 1904.
- DONLEVY, Brian (actor); Portadown, Ire., Feb. 9, 1903.

- DOONOVAN, Richard** (baseball player); Quincy, Mass., Dec. 7, 1927.
- DORATI, Antal** (orchestra conductor); Budapest, Hung., Apr. 9, 1906.
- DOS PASSOS, John** (novelist); Chicago, Ill., Jan. 14, 1896.
- DOUGLAS, Kirk** (Issur Danielovitch) (actor); Amsterdam, N. Y., Dec. 9, 1916.
- DOUGLAS, Melvyn** (Melvyn Hesselberg) (actor); Macon, Ga., Apr. 5, 1901.
- DOUGLAS, Paul** (actor); Philadelphia, Pa., Apr. 11, 1907.
- DOWLING, Eddie** (actor & director); Woonsocket, R. I., Dec. 9, 1894.
- DRAKE, Alfred** (singer & actor); New York City, Oct. 7, 1914.
- DRAPER, Paul** (dancer); Florence, It., Oct. 25, 1911.
- DRUMMOND, Roscoe** (journalist); Theresa, N. Y.
- DRYSDALE, Don** (baseball player); Van Nuys, Calif., July 23, 1936.
- DUBINSKY, David** (David Dobniewski) (labor leader); Brest-Litovsk, Poland, Feb. 22, 1892.
- DUCLOS, Jacques** (French Communist leader); Louey, Fr., Oct. 2, 1896.
- DULLES, Allen W.** (CIA Director, U. S.); Watertown, N. Y., Apr. 7, 1893.
- DULLES, John Foster** (Secy. of State, U. S.); Washington, D. C., Feb. 25, 1888.
- DU MAURIER, Daphne** (novelist); London, Eng., May 13, 1907.
- DUNCAN, Todd** (singer); Danville, Ky., Feb. 12, 1903.
- DUNHAM, Katherine** (dancer); Chicago, Ill.
- DUNNE, Irene** (actress); Louisville, Ky., Dec. 20, 1904.
- DUNNOCK, Mildred** (actress); Baltimore, Md.
- DURANTE, Jimmy** (comedian); New York City, Feb. 10, 1893.
- DUROCHER, Leo** (former baseball manager); West Springfield, Mass., July 27, 1906.
- DYKES, Jimmie** (baseball coach); Philadelphia, Pa., Nov. 10, 1896.
- EASTMAN, Max** (social writer); Canandaigua, N. Y., Jan. 4, 1883.
- ECKSTINE, Billy** (singer); Pittsburgh, Pa., July 8, 1914.
- EDDY, Nelson** (baritone); Providence, R. I., June 29, 1901.
- EDEN, Sir Anthony** (former Prime Minister, Gr. Brit.); England, June 12, 1897.
- EGLEVSKY, André** (dancer); Moscow, Rus., Dec. 21, 1917.
- EISENHOWER, Dwight D.** (President, U. S.); Denison, Tex., Oct. 14, 1890.
- EISENHOWER, Milton S.** (educator); Abilene, Kans., Sept. 15, 1899.
- ELDRIDGE, Florence** (Florence McKechnie) (actress); Brooklyn, N. Y., Sept. 5, 1901.
- ELIOT, T. S.** (Thomas Stearns Eliot) (poet); St. Louis, Mo., Sept. 26, 1888.
- ELIZABETH II** (Queen, Gr. Brit., etc.); London, Eng., Apr. 21, 1926.
- ELLINGTON, Duke** (Edward) (band leader); Washington, D. C., Apr. 29, 1899.
- ELMAN, Mischa** (violinist); Stalnoye, Rus., Jan. 20, 1891.
- EMERSON, Faye** (actress); Elizabeth, La., July 8, 1917.
- EPSTEIN, Sir Jacob** (sculptor); New York City, Nov. 10, 1880.
- ERSKINE, Carl** (baseball player); Anderson, Ind., Dec. 13, 1926.
- EVANS, Dame Edith** (actress); London, Eng., Feb. 8, 1888.
- EVANS, Maurice** (actor); Dorchester, Eng., June 3, 1901.
- EWELL, Tom** (Yewell Tompkins) (actor); Owensboro, Ky., Apr. 29, 1909.
- FABRAY, Nanette** (Nanette Fabarés) (actress); San Diego, Calif., Oct. 27, 1922.
- FADIMAN, Clifton** (literary critic); Brooklyn, N. Y., May 15, 1904.
- FAIRBANKS, Douglas, Jr.** (actor); New York City, Dec. 9, 1909.
- FAIRLESS, Benjamin F.** (industrialist); Pigeon Run, Ohio, May 3, 1890.
- FALKENBURG, Jinx** (Eugenia) (actress); Barcelona, Sp., Jan. 21, 1919.
- FARRELL, Charles** (actor); Dublin, Ire., Aug. 6, 1905.
- FARRELL, James T.** (novelist); Chicago, Ill., Feb. 27, 1904.
- FAST, Howard** (novelist); New York City, Nov. 11, 1914.
- FAULKNER, William** (novelist); New Albany, Miss., Sept. 25, 1897.
- FERBER, Edna** (novelist); Kalamazoo, Mich., Aug. 15, 1887.
- FERNANDEL** (Fernand Contandin) (actor); Marseille, France, May 8, 1903.
- FERRER, Jose** (actor); Puerto Rico, 1909.
- FERRER, Mel** (actor); Elberon, N. J., Aug. 25, 1917.
- FEUCHTWANGER, Lion** (novelist); Munich, Ger., July 7, 1884.
- FIEDLER, Arthur** (orchestra conductor); Boston, Mass., Dec. 17, 1894.
- FIELD, Betty** (actress); Boston, Mass., Feb. 8, 1918.
- FIELD, Marshall, Jr.** (newspaperman); New York City, June 15, 1916.
- FIELDS, Gracie** (actress); Rochdale, Eng., Jan. 9, 1898.
- FISHER, Dorothy Canfield** (novelist); Lawrence, Kans., Feb. 17, 1879.
- FISHER, Eddie** (singer); Philadelphia, Pa., Aug. 10, 1928.
- FITZGERALD, Barry** (William J. Shields) (actor); Dublin, Ire., Mar. 1888.
- FITZGERALD, Ella** (singer); Newport News, Va., Apr. 25, 1918.
- FITZGERALD, Geraldine** (actress); Dublin, Ire., Nov. 24, 1914.
- FITZSIMMONS, Sunny Jim** (horse trainer); Sheepshead Bay, N. Y., July 23, 1874.
- FLAGSTAD, Kirsten** (soprano); Hamar, Nor., July 12, 1895.
- FLEMING, Rhonda** (Marilyn Louis) (actress); Los Angeles, Calif., Aug. 10, 1923.
- FLYNN, Errol** (actor); Hobart, Tasmania, June 20, 1909.
- FOCH, Nina** (actress); Leyden, Neth., Apr. 20, 1924.
- FONDA, Henry** (actor); Grand Island, Nebr., May 16, 1905.
- FONTAINE, Joan** (actress); Tokyo, Jap., Oct. 22, 1917.
- FONTANNE, Lynn** (actress); London, Eng., 1887.

- FONTEYN**, Dame Margot (Margaret Hookham) (ballerina); Reigate, Eng., May 18, 1919.
- FORD**, Glenn (Gwyllyn Ford) (actor); Quebec, Can., May 1, 1922.
- FORD**, Henry, II (industrialist); Detroit, Mich., Sept. 4, 1917.
- FORD**, John (movie director); Cape Elizabeth, Maine, Feb. 1, 1895.
- FORD**, Tennessee Ernie (entertainer); Fordtown, Tenn., Feb. 13, 1919.
- FORD**, Whitey (Edward) (baseball player); New York City, Oct. 21, 1928.
- FORESTER**, C. S. (Cecil Scott Forester) (novelist); Cairo, Egypt, Aug. 27, 1899.
- FORSTER**, E. M. (Edward M.) (novelist); England, 1879.
- FORSYTHE**, John (actor); Penns Grove, N. J., Jan. 29, 1918.
- FOWLER**, Gene (biographer); Denver, Colo., 1890.
- FOX**, Nellie (Jacob Nelson Fox) (baseball player); St. Thomas, Pa., Dec. 25, 1927.
- FRANCESCATTI**, Zino (violinist); Marseille, Fr., Aug. 9, 1905.
- FRANCIS**, Arlene (Arlene Francis Kazanjian) (actress); Boston, Mass., 1908.
- FRANCO**, Francisco (Chief of State, Spain); El Ferrol, Sp., Dec. 4, 1892.
- FRANKEN**, Rose (dramatist & novelist); Gainesville, Tex., 1898.
- FRAWLEY**, William (actor); Burlington, Iowa, Feb. 26, 1893.
- FREDERICK IX** (King, Denmark); nr. Copenhagen, Den., Mar. 11, 1899.
- FRICK**, Ford C. (baseball executive); Wawaka, Ind., Dec. 19, 1894.
- FRIEND**, Robert (baseball player); Lafayette, Ind., Mar. 24, 1930.
- FRIML**, Rudolf (composer); Prague, Czech., Dec. 7, 1884.
- FRISCH**, Frank F. (baseball player and announcer); New York City, Sept. 9, 1898.
- FROMAN**, Jane (singer); St. Louis, Mo., Nov. 10, 1911.
- FROST**, Robert (poet); San Francisco, Calif., Mar. 26, 1875.
- FRY**, Christopher (dramatist); Bristol, Eng., Dec. 18, 1907.
- FUNSTON**, George Keith (financial executive); Waterloo, Iowa, Oct. 12, 1910.
- FURILLO**, Carl (baseball player); Stony Creek Mills, Pa., Mar. 8, 1922.
- GABIN**, Jean (actor); Paris, Fr., May 17, 1904.
- GABLE**, Clark (actor); Cadiz, Ohio, Feb. 1, 1901.
- GAITSKELL**, Hugh (British statesman); London, Eng., Apr. 9, 1906.
- GALLICO**, Paul (author); New York City, July 26, 1897.
- GALLUP**, George H. (public opinion statistician); Jefferson, Iowa, Nov. 18, 1901.
- GARBO**, Greta (Greta Gustafsson) (actress); Stockholm, Swed., Sept. 18, 1905.
- GARDEN**, Mary (soprano); Aberdeen, Scot., Feb. 20, 1877.
- GARDINER**, Reginald (actor); Wimbledon, Eng., Feb. 27, 1903.
- GARDNER**, Ava (actress); Smithfield, North Carolina.
- GARDNER**, Ed (Edward Poggenberg) (actor); Astoria, N. Y., June 29, 1905.
- GARDNER**, Erle Stanley (novelist); Malden, Mass., July 17, 1889.
- GARLAND**, Judy (Frances Gumm) (actress); Grand Rapids, Minn., June 10, 1922.
- GARROWAY**, Dave (comedian); Schenectady, N. Y., July 13, 1913.
- GARSON**, Greer (actress); County Down, Ireland.
- GAXTON**, William (Arturo Caxiola) (actor); San Francisco, Calif., Dec. 2, 1893.
- GAYNOR**, Mitzl (actress); Chicago, Ill., Sept. 1905.
- GEDDES**, Barbara Bel (actress); New York City, Oct. 31, 1922.
- GEORGE**, Grace (actress); New York City, Dec. 25, 1880.
- GERSHWIN**, Ira (lyricist); New York City, Dec. 6, 1896.
- GIBSON**, Althea (tennis player); Silver, S. C., Aug. 25, 1927.
- GIELGUD**, Sir John (actor); London, Eng., Apr. 14, 1904.
- GILELS**, Emil (pianist); Odessa, Ukr., 1914.
- GILES**, Warren (baseball executive); Tiskilwa, Ill., May 28, 1896.
- GIMBEL**, Bernard F. (merchant); Vincennes, Ind., Apr. 10, 1885.
- GISH**, Dorothy (actress); Massillon, Ohio, Mar. 11, 1898.
- GISH**, Lillian (actress); Springfield, Ohio, Oct. 14, 1896.
- GLEASON**, Jackie (actor); Brooklyn, N. Y., Feb. 26, 1916.
- GLEASON**, James (actor); New York City, May 23, 1886.
- GOBEL**, George (comedian); Chicago, Ill., May 20, 1920.
- GODDARD**, Paulette (actress); Great Neck, N. Y., June 3, 1911.
- GODFREY**, Arthur (entertainer); New York City, Aug. 31, 1903.
- GOLDBERG**, Rube (Reuben) (cartoonist); San Francisco, Calif., July 4, 1883.
- GOLDWYN**, Samuel (Samuel Goldfish) (movie producer); Warsaw, Pol., 1882.
- GOLDSCHMANN**, Vladimir (orchestra conductor); Paris, Fr., Dec. 16, 1893.
- GONZALEZ**, Pancho (tennis player); Los Angeles, Calif., May 9, 1928.
- GOODMAN**, Benny (clarinetist); Chicago, Ill., May 30, 1909.
- GOOSSENS**, Eugene (orchestra conductor); London, Eng., May 26, 1893.
- GORDON**, Max (play producer); New York City, 1892.
- GORDON**, Ruth (actress); Wollaston, Mass., Oct. 30, 1896.
- GOSDEN**, Freeman F. *See* Amos.
- GOULD**, Chester (cartoonist); Pawnee, Okla., 1900.
- GOULD**, Morton (composer); Richmond Hill, N. Y., Dec. 10, 1913.
- GRABLE**, Betty (actress); St. Louis, Mo., Dec. 18, 1916.
- GRACE**, Eugene G. (industrialist); Goshen, N. J., Aug. 27, 1876.
- GRAHAM**, Billy (William F.) (evangelist); Charlotte, N. C., Nov. 7, 1918.
- GRAHAM**, Martha (choreographer); Pittsburgh, Pa.

- GRAHAME, Gloria** (Gloria Grahame Hollward) (actress); Los Angeles, Calif., Nov. 28, 1925.
- GRANGE, Red** (Harold) (football player and announcer); Forksville, Pa., June 13, 1904.
- GRANGER, Stewart** (James Stewart) (actor); May 6, 1913.
- GRANT, Cary** (Archibald A. Leach) (actor); Bristol, Eng., Jan. 18, 1904.
- GRAVES, Robert** (poet & novelist); London, Eng., July 26, 1895.
- GRAY, Harold** (cartoonist); Kankakee, Ill., Jan. 20, 1894.
- GRAYSON, Kathryn** (Zelma Hedrick) (actress); Winston-Salem, N. C.
- GRECO, José** (dancer); Montorio nel Fren-tani, It., Dec. 23, 1918.
- GREEN, Paul** (dramatist); Lillington, N. C., Mar. 17, 1894.
- GREENBERG, Hank** (baseball executive); New York City, Jan. 1, 1911.
- GREENE, Graham** (novelist); Berkhamstead, Eng., Oct. 2, 1904.
- GRIMM, Charley** (baseball executive); St. Louis, Mo., Aug. 28, 1898.
- GRISWOLD, A. Whitney** (educator); Morris-town, N. J., Oct. 27, 1906.
- GROFÉ, Ferde** (composer); New York City, Mar. 27, 1892.
- GROMYKO, Andrei A.** (Soviet statesman); Starye Gromyki, Rus., July 5, 1909.
- GRONCHI, Giovanni** (Pres., It.); Pontedera, It., Sept. 10, 1887.
- GROPIUS, Walter** (architect); Berlin, Ger., May 18, 1883.
- GROSZ, George** (painter); Berlin, Ger., July 26, 1893.
- GROVE, Lefty** (Robert M.) (baseball player); Lonaconing, Md., Mar. 6, 1900.
- GRUENTHER, Gen. Alfred M.** (Pres., Red Cross); Platte Center, Nebr., Mar. 3, 1899.
- GUEST, Edgar** (poet); Birmingham, Eng., Aug. 20, 1881.
- GUINNESS, Alec** (actor); Marylebone, London, Eng., Apr. 2, 1914.
- GUNTHER, John** (journalist & author); Chi-cago, Ill., Aug. 30, 1901.
- GUSTAVUS VI** (King, Sweden); Stockholm, Swed., Nov. 11, 1882.
- GWENN, Edmund** (actor); London, Eng., Sept. 26, 1877.
- HACKETT, Francis** (critic & novelist); Kil-kenny, Ire., Jan. 21, 1883.
- HAGEN, Walter** (golfer); Rochester, N. Y., Dec. 21, 1892.
- HAGERTY, James C.** (Pres. Press Secy., U. S.); Plattsburg, N. Y., May 9, 1909.
- HAILÉ SELASSIE I** (Emperor, Ethiopia); Ethiopia, July 17, 1891.
- HALAS, George** (football coach); Chicago, Ill., Feb. 2, 1895.
- HAMMARSKJÖLD, Dag** (Sec. Gen., U. N.); Jönköping, Swed., July 29, 1905.
- HAMMERSTEIN, Oscar, II** (librettist); New York City, July 12, 1895.
- HAMMETT, Dashiell** (novelist); St. Marys Co., Md., May 27, 1894.
- HAND, Learned** (U. S. jurist); Albany, N. Y., Jan. 27, 1872.
- HANEY, Fred** (baseball manager); Albuquer-que, N. Mex., Apr. 25, 1898.
- HANSON, Howard** (composer); Wahoo, Nebr., Oct. 28, 1896.
- HARDWICKE, Sir Cedric** (actor); Lye, Eng., Feb. 19, 1893.
- HARRIDGE, Will** (baseball executive); Chi-cago, Ill., Oct. 16, 1886.
- HARRIS, Bucky** (Stanley R.) (baseball man-ager); Port Jervis, N. Y., Nov. 8, 1896.
- HARRIS, Jed** (stage producer); Vienna, Aus., Feb. 25, 1900.
- HARRIS, Julie** (actress); Grosse Pointe Park, Mich., Dec. 2, 1925.
- HARRIS, Phil** (band leader); Linton, Ind., June 24, 1906.
- HARRIS, Roy** (composer); Lincoln Co., Okla., Feb. 12, 1898.
- HARRISON, Rex** (actor); Huyton, Eng., Mar 5, 1908.
- HARRISON, Wallace K.** (architect); Worces-ter, Mass., Sept. 28, 1895.
- HART, Moss** (dramatist); New York City, Oct. 24, 1904.
- HATLO, Jimmy** (cartoonist); Providence, R. I., Sept. 1, 1898.
- HAVOC, June** (June Hovick) (actress); Se-atle, Wash.
- HAWKINS, Jack** (actor); London, Eng., Sept. 14.
- HAYES, Alfred** (novelist); London, 1911.
- HAYES, Helen** (Helen Hayes Brown) (actress); Washington, D. C., Oct. 10, 1900.
- HAYES, Roland** (tenor); Curryville, Ga., June 3, 1887.
- HAYWARD, Leland** (theatrical producer); Nebraska City, Nebr., Sept. 13, 1902.
- HAYWARD, Susan** (Edythe Marrener) (ac-tress); Brooklyn, N. Y., June 30, 1919.
- HAYWORTH, Rita** (Margarita Cansino) (ac-tress); New York City, Oct. 17, 1918.
- HEALD, Henry T.** (educator); Lincoln, Nebr., Nov. 8, 1904.
- HEARST, David W.** (publisher); New York City, Dec. 2, 1915.
- HEARST, John Randolph** (publisher); New York City, Sept. 26, 1909.
- HEARST, Randolph A.** (publisher); New York City, Dec. 2, 1915.
- HEARST, William Randolph, Jr.** (publisher); New York City, Jan. 27, 1908.
- HEATTER, Gabriel** (radio commentator); New York City, 1890.
- HECHT, Ben** (novelist & dramatist); New York City, Feb. 28, 1894.
- HEFLIN, Van** (actor); Walters, Okla., Dec. 13, 1910.
- KEIFETZ, Jascha** (violinist); Vilna, Rus., Feb. 2, 1901.
- HELLMAN, Lillian** (dramatist); New Orleans, La., June 20, 1905.
- HEMINGWAY, Ernest** (novelist); Oak Park, Ill., July 21, 1898.
- HENDERSON, Skitch** (pianist); Birmingham, Eng., Jan. 27, 1918.
- HENIE, Sonja** (skater); Oslo, Nor., Apr. 8, 1913.
- HENREID, Paul** (actor); Trieste, Jan. 10, 1908.
- HEPBURN, Audrey** (actress); Brussels, Belg., May 4, 1929.
- HEPBURN, Katharine** (actress); Hartford, Conn., 1909.
- HERBLOCK** (Herbert L. Block) (cartoonist); Chicago, Ill., Oct. 13, 1909.

- HERMAN**, Woody (band leader); Milwaukee, Wis., May 16, 1913.
- HERSEY**, John R. (novelist); Tientsin, China, June 17, 1914.
- HESS**, Dame Myra (pianist); London, Eng., Feb. 25, 1890.
- HESTON**, Charlton (actor); Evanston, Ill., Oct. 4, 1924.
- HILDEGARDE**, (Hildegard Loretta Sell) (entertainer); Adel, Wis., Feb. 1, 1906.
- HILLIARD**, Harriet (Peggy Lou Snyder) (actress & singer); Des Moines, Iowa.
- HINDEMITH**, Paul (composer); Hanau, Ger., Nov. 16, 1895.
- HIROHITO** (Emperor, Japan); Japan, Apr. 29, 1901.
- HIRSCH**, Max (horse trainer); Fredericksburg, Tex., July 12, 1880.
- HITCHCOCK**, Alfred J. (movie director); England, Aug. 13, 1899.
- HO CHI MINH** (Vietnam statesman); Annam, Indo-China, c. 1891.
- HOAD**, Lew (Lewis) (tennis player); Glebe, NSW, Australia, Nov. 23, 1934.
- HOBBSON**, Laura Z. (Laura K. Zamestkin) (novelist); New York City.
- HODGES**, Gil (Gilbert) (baseball player); Princeton, Ind., Apr. 4, 1924.
- HOGAN**, Ben (golfer); Dublin, Tex., Aug. 13, 1912.
- HOLDEN**, William (William Franklin Beedle, Jr.) (actor); O'Fallon, Ill., Apr. 17, 1918.
- HOLLIDAY**, Judy (actress); New York City, June 21, 1923.
- HOLM**, Celeste (actress & singer); New York City, Apr. 29, 1919.
- HOOK**, Sidney (philosopher); New York City; Dec. 20, 1902.
- HOOVER**, Herbert C. (U. S. statesman); West Branch, Iowa, Aug. 10, 1874.
- HOOVER**, J. Edgar (FBI Director, U. S.); Washington, D. C., Jan. 1, 1895.
- HOPE**, Bob (comedian); London, Eng., May 29, 1903.
- HOPPE**, Willie (billiards player); Cornwall, N. Y., Oct. 11, 1887.
- HOPPER**, Hedda (columnist); Hollidaysburg, Pa., June 2, 1890.
- HORNE**, Lena (singer) Brooklyn, New York, 1918.
- HORNSBY**, Rogers (baseball player and coach); Winters, Tex., Apr. 27, 1896.
- HOROWITZ**, Vladimir (pianist); Kiev, Rus., Oct. 1, 1904.
- HORTON**, Edward Everett (actor); Brooklyn, N. Y., Mar. 18, 1886.
- HOUSMAN**, John (John Haussmann) (stage & movie director); Rumania, Sept. 22, 1902.
- HOUSMAN**, Laurence (dramatist & novelist); Bromsgrove, Eng., July 18, 1865.
- HOWARD**, Roy W. (publisher); Gano, Ohio, Jan. 1, 1883.
- HOWELL**, Jim Lee (football coach); Lonoke, Ark., Sept. 27, 1914.
- HUBBELL**, Carl (baseball executive); Carthage, Mo., June 22, 1903.
- HUDSON**, Rock (actor); Winnetka, Ill., Nov. 17, 1925.
- HUGHES**, Langston (poet); Joplin, Mo., Feb. 1, 1902.
- HULL**, Henry (actor); Louisville, Ky., Oct. 3, 1890.
- HUMPHREY**, George M. (former Secy. of Treasury, U. S.); Cheboygan, Mich., Mar. 8, 1890.
- HUNTER**, Kim (Janet Cole) (actress); Detroit, Mich., Nov. 12, 1922.
- HUNTER**, Tab (actor); New York City, July 11, 1931.
- HUROK**, Sol (impresario); Pogor, Rus., Apr. 9, 1888.
- HUSSEY**, Ruth (actress); Providence, Rhode Island.
- HUSTON**, John (movie director); Nevada, Mo., Aug. 5, 1906.
- HUTCHINS**, Robert M. (educator); Brooklyn, N. Y., Jan. 17, 1889.
- HUTTON**, Barbara (heiress); New York City, Nov. 14, 1912.
- HUTTON**, Betty (Betty Thornberg) (singer); Battle Creek, Mich., Feb. 26, 1921.
- HUXLEY**, Aldous (novelist); Godalming, Eng., July 26, 1894.
- HUXLEY**, Julian S. (biologist); England, June 22, 1887.
- IBERT**, Jacques (composer); Paris, Fr., Aug. 15, 1890.
- INGE**, William (dramatist); Independence, Kans., May 3, 1913.
- IRELAND**, John (actor); Vancouver, B. C., Can., Jan. 30, 1915.
- ISHERWOOD**, Christopher (novelist); Disley, Cheshire, Eng., Aug. 26, 1904.
- ITURBI**, José (pianist); Valencia, Sp., Nov. 28, 1895.
- IVES**, Burl (folksinger & actor); Hunt, Ill., June 14, 1909.
- JACOBS**, Hirsch (horse trainer); New York City, Apr. 8, 1904.
- JAFFE**, Sam (actor); New York City, Mar. 18, 1898.
- JAGGER**, Dean (actor); Lima, Ohio, Nov. 1903.
- JAMES**, Harry (trumpeter); Albany, Ga., Mar. 15, 1916.
- JAMESON**, Margaret Storm (novelist); Whitby, Eng., 1897.
- JEANMAIRE**, Renée (dancer & actress); Paris, Fr., Apr. 29, 1924.
- JEBB**, Sir Gladwyn (British statesman); England, Apr. 25, 1900.
- JEFFERS**, Robinson (poet); Pittsburgh, Pa., Jan. 10, 1887.
- JESSEL**, George (comedian); New York City, Apr. 3, 1898.
- JESSUP**, Philip C. (U. S. statesman); New York City, Jan. 5, 1897.
- JOHN**, Augustus (painter); Tenby, Wales, Jan. 4, 1879.
- JOHNS**, Glyndis (actress); Durban, So. Afr., Oct. 5, 1923.
- JOHNSON**, Van (actor); Newport, R. I., Aug. 20, 1916.
- JOHNSTON**, Eric A. (movie executive); Washington, D. C., Dec. 21, 1896.
- JONES**, Bobby (golfer); Atlanta, Ga., Mar. 17, 1902.
- JONES**, James (novelist); Robinson, Ill., Nov. 6, 1921.
- JONES**, Jennifer (Phyllis Isley) (actress); Tulsa, Okla., Mar. 2, 1919.

- JONES**, Sam (baseball player); Stewartsville, Ohio, Dec. 14, 1925.
- JORDAN**, James. *See* McGee.
- JORDAN**, Marian. *See* McGee.
- JORY**, Victor (actor); Dawson, Can., Nov. 23, 1902.
- JOSEPHSON**, Matthew (critic & biographer); Brooklyn, N. Y., Feb. 15, 1899.
- JOURDAN**, Louis (actor); Marseilles, Fr., June 18, 1921.
- JULIANA** (Queen, Netherlands); The Hague, Neth., Apr. 30, 1909.
- JUNG**, Carl G. (psychiatrist); Basel, Switz., July 26, 1875.
- KADAR**, János (Premier of Hungary); Hungary, 1912.
- KAISER**, Henry J. (industrialist); Sprout Brook, N. Y., May 9, 1882.
- KALINE**, Al (Albert) (baseball player); Baltimore, Md., Dec. 19, 1934.
- KALTENBORN**, Hans V. (radio commentator); Milwaukee, Wis., July 9, 1878.
- KANIN**, Garson (dramatist & director); Rochester, N. Y., Nov. 24, 1912.
- KANTOR**, MacKinlay (novelist); Webster City, Iowa, Feb. 4, 1904.
- KARLOFF**, Boris (William Henry Pratt) (actor); Dulwich, Eng., Nov. 23, 1887.
- KAUFMAN**, George S. (dramatist); Pittsburgh, Pa., Nov. 16, 1889.
- KAYE**, Danny (David Daniel Kominski) (comedian); Brooklyn, New York, Jan. 18, 1913.
- KAYE**, Nora (Nora Koreff) (ballerina); New York City, 1920.
- KAYE**, Sammy (band leader); Cleveland, Ohio, Mar. 13, 1910.
- KAZAN**, Elia (movie & stage director); Constantinople, Turk., Sept. 7, 1909.
- KEATON**, Buster (comedian); Piqua, Kans., Oct. 4, 1896.
- KEEL**, Howard (singer & actor); Gillespie, Ill.
- KEFAUVER**, Estes (U. S. legislator); Madisonville, Tenn., July 26, 1903.
- KELLAND**, Clarence Budington (novelist); Portland, Mich., July 11, 1881.
- KELLER**, Helen (author & social worker); Tusculumbia, Ala., June 27, 1880.
- KELLY**, Emmett (circus clown); Sedan, Kans., 1898.
- KELLY**, Gene (actor); Pittsburgh, Pa., Aug. 23, 1912.
- KELLY**, Grace (actress & Princess of Monaco); Philadelphia, Pa., Nov. 12, 1929.
- KELLY**, Walt (cartoonist); Philadelphia, Pa., Aug. 25, 1913.
- KENNAN**, George F. (writer & ex-Amb. to USSR); Milwaukee, Wis., Feb. 16, 1904.
- KENNEDY**, Arthur (actor); Worcester, Mass., Feb. 17, 1914.
- KENNEDY**, Margaret (novelist); London, Eng., 1896.
- KENT**, Rockwell (painter); Tarrytown Heights, N. Y., June 21, 1882.
- KERENSKY**, Alexander (former Russian Premier); Simbirsk, Rus., 1881.
- KERR**, Deborah (actress); Helensburgh, Scot., Sept. 30, 1921.
- KETTERING**, Charles F. (engineer); nr. Loudonville, Ohio, Aug. 29, 1876.
- KEYES**, Frances Parkinson (novelist); Univ. of Va., July 21, 1885.
- KHACHATURIAN**, Aram (composer); Tiflis, Rus., June 6, 1903.
- KHRUSHCHEV**, Nikita S. (Soviet statesman); Kallnovka, Rus., Apr. 17, 1894.
- KIEPURA**, Jan (tenor); Sosnowiec, Pol., May 16, 1902.
- KIERAN**, John (author); New York City, Aug. 2, 1892.
- KILGALLAN**, Dorothy (columnist); Chicago, Ill., July 3, 1913.
- KILPATRICK**, John Reed (sports executive); New York City, June 15, 1889.
- KING**, Dennis (actor); Coventry, Eng., Nov. 2, 1897.
- KING**, Henry (movie director); Christianburg, Va., Jan. 24, 1896.
- KINGSLEY**, Sidney (Sidney Kirschner) (dramatist); New York City, October 18, 1906.
- KIPNIS**, Alexander (basso); Ukraine, Feb. 1, 1896.
- KIRK**, Grayson (educator); Jeffersonville, Ohio, Oct. 12, 1903.
- KIRK**, Lisa (singer); Charleroi, Pa.
- KIRKPATRICK**, Ralph (harpsichordist); Leominster, Mass., June 10, 1911.
- KIRSTEN**, Dorothy (soprano); Montclair, N. J., July 6, 1919.
- KITT**, Eartha (singer & actress); North, S. C., Jan. 26, 1928.
- KLEMPERER**, Otto (orchestra conductor); Breslau, Ger., 1885.
- KLUSZEWSKI**, Ted (Theodore) (baseball player); Argo, Ill., Sept. 10, 1924.
- KNIGHT**, John S. (publisher); Bluefield, W. Va., Oct. 26, 1894.
- KNOPF**, Alfred A. (publisher); New York City, Sept. 12, 1892.
- KODÁLY**, Zoltán (composer); Kecskemét, Hung., Dec. 16, 1882.
- KOESTLER**, Arthur (novelist); Budapest, Hung., Sept. 5, 1905.
- KOKOSCHKA**, Oskar (painter); Pöchlarn, Aus., Mar. 1, 1886.
- KOSTELANETZ**, Andre (orchestra conductor); Petrograd, Rus., Dec. 22, 1901.
- KOVACS**, Ernie (comedian); Trenton, N. J., Jan. 23, 1919.
- KRAMER**, John A. (tennis player); Las Vegas, Nev., Aug. 1, 1921.
- KRAMER**, Stanley E. (movie producer); New York City, Sept. 29, 1913.
- KREISLER**, Fritz (violinist); Vienna, Aus., Feb. 2, 1875.
- KROCK**, Arthur (journalist); November 16, 1886.
- KRUGER**, Otto (actor); Toledo, Ohio, Sept. 6, 1885.
- KRUPA**, Gene (drummer & band leader); Chicago, Ill., Jan. 15, 1909.
- KUBELIK**, Rafael (orchestra conductor); Bychory, Bohemia, June 29, 1914.
- KUCKS**, John (baseball player); Hoboken, N. J., Jan. 27, 1933.
- KUENN**, Harvey (baseball player); Milwaukee, Wis., Dec. 4, 1930.
- KULLMAN**, Charles (tenor); New Haven, Conn., Jan. 13, 1903.
- KURTZ**, Efreim (orchestra conductor); St. Petersburg, Rus., Nov. 7, 1900.

- LABINE**, Clem (Clement) (baseball player); Lincoln, R. I., Aug. 6, 1926.
- LADD**, Alan (actor); Hot Springs, Ark., Sept. 3, 1913.
- LA FARGE**, Oliver (author & anthropologist); New York City, Dec. 19, 1901.
- LAHR**, Bert (Irving Lahrheim) (comedian); New York City, Aug. 13, 1895.
- LAINE**, Frankie (Frank Paul LoVecchio) (singer); Chicago, Ill., Mar. 30, 1913.
- LAMARR**, Hedy (actress); Vienna, Aus.
- LAMAS**, Fernando (actor); Buenos Aires, Arg., Jan. 9.
- LAMOUR**, Dorothy (actress); New Orleans, La., Dec. 10, 1914.
- LANCASTER**, Burt (actor); New York City, Nov. 2, 1913.
- LANCHESTER**, Elsa (Elsa Sullivan) (actress); London, Eng., Oct. 28, 1902.
- LANDOWSKA**, Wanda (harpsichordist); Warsaw, Pol., July 5, 1877.
- LANDY**, John (mile runner); Australia, Apr. 4, 1930.
- LANG**, Fritz (movie director); Vienna, Aus., Dec. 5, 1890.
- LANG**, Harold (dancer & actor); San Francisco, Calif.
- LANZA**, Mario (Alfredo Arnold Cocozza) (tenor); So. Philadelphia, Pa., Jan. 31, 1921.
- LA ROSA**, Julius (singer); Brooklyn, N. Y., Jan. 2, 1930.
- LARSON**, Don (baseball player); Michigan City, Ind., Aug. 7, 1929.
- LAUGHTON**, Charles (actor); Scarborough, Eng., July 1, 1899.
- LAWFORD**, Peter (actor); London, Eng., Sept. 7, 1923.
- LAWRENCE**, Brooks (baseball player); Springfield, Ohio, Jan. 30, 1925.
- LAWRENCE**, David (journalist); Philadelphia, Pa., Dec. 25, 1888.
- LAWRENCE**, Marjorie (soprano); Deans Marsh, Austr., Feb. 17, 1909.
- LEAHY**, Frank (football coach); O'Neill, Nebr., Aug. 21, 1908.
- LEAN**, David (movie director); Croydon, Eng., Mar. 25, 1908.
- LE CORBUSIER** (Charles-Édouard Jeanneret) (architect); La Chaux De Fonds, Switz., Oct. 6, 1887.
- LEE**, Gypsy Rose (Rose Hovik) (entertainer); Seattle, Wash., Feb. 9, 1914.
- LEE**, Peggy (singer); Jamestown, N. Dak., 1921.
- LE GALLIENNE**, Eva (actress & director); London, Eng., Jan. 11, 1899.
- LEHMAN**, Herbert H. (former U. S. Senator); New York City, Mar. 28, 1878.
- LEHMANN**, Lotte (soprano); Perleberg, Ger., July 2, 1885.
- LEIGH**, Janet (Jeanette Morrison) (actress); Merced, Calif., July 6, 1927.
- LEIGH**, Vivien (Vivian Hartley) (actress); Darjeeling, India, Nov. 5, 1913.
- LEIGHTON**, Margaret (actress); Birmingham, Eng., Feb. 26, 1922.
- LEINSDORF**, Erich (orchestra conductor); Vienna, Aus., Feb. 4, 1912.
- LEMMON**, Jack (actor); Boston, Mass., Feb. 8, 1925.
- LENER**, Alan Jay (librettist); New York City, Aug. 31, 1918.
- LENER**, Max (social writer); Minsk, Rus., Dec. 20, 1902.
- LE ROY**, Mervyn (movie producer & director); San Francisco, Calif., Oct. 15, 1900.
- LEVANT**, Oscar (pianist); Pittsburgh, Pa., Dec. 27, 1906.
- LEVENE**, Sam (actor); New York City, 1907.
- LEVI**, Carlo (novelist); Turin, It., Nov. 29, 1902.
- LEVIN**, Herman (theatrical producer); Philadelphia, Pa., Mar. 1, 1908.
- LEWIS**, Fulton, Jr. (columnist); Washington, D. C., Apr. 30, 1903.
- LEWIS**, Jerry (comedian); Newark, N. J., Mar. 16, 1926.
- LEWIS**, Joe E. (comedian); New York City
- LEWIS**, John L. (labor leader); Lucas, Iowa, Feb. 12, 1880.
- LEWIS**, Ted (band leader); Circleville, Ohio
- LEY**, Willy (science writer); Berlin, Ger., Oct. 2, 1906.
- LIBERACE** (Wladziu Liberace) (pianist); West Allis, Wis., May 16, 1919.
- LILLIE**, Beatrice (actress); Toronto, Can., May 29, 1898.
- LIN** Yutang (philosopher); Changchow, China, Oct. 10, 1895.
- LINDBERGH**, Anne Morrow (writer); Englewood, N. J., 1907.
- LINDBERGH**, Charles A. (aviator); Detroit, Mich., Feb. 4, 1902.
- LINDSAY**, Howard (dramatist); Waterford, N. Y., Mar. 29, 1889.
- LINKLETTER**, Art (actor); Moose Jaw, Sask., Can., July 17, 1912.
- LIPCHITZ**, Jacques (sculptor); Druskeniki, Lith., Aug. 22, 1891.
- LIPPMANN**, Walter (author & journalist); New York City, Sept. 23, 1889.
- LITTLE**, Lou (football coach); Leominster, Mass., Dec. 6, 1893.
- LIVESY**, Roger (actor); Barry, Wales, June 25, 1906.
- LLEWELLYN**, Richard (novelist); St. David's, Wales.
- LLOYD**, Harold (comedian); Burchard, Nebr., Apr. 20, 1894.
- LLOYD**, Selwyn (British diplomat); West Kirby, Eng., July 28, 1904.
- LOCKWOOD**, Margaret (actress); Karachi, India, 1916.
- LODGE**, Henry Cabot, Jr. (U. N. Delegate, U. S.); Nahant, Mass., July 5, 1902.
- LOESSER**, Frank (song writer); New York City, June 29, 1910.
- LOEWE**, Frederick (song writer); Vienna, Aus., June 10, 1904.
- LOGAN**, Joshua (director & dramatist); Texarkana, Tex., Oct. 5, 1908.
- LOLLOBRIGIDA**, Gina (actress); Subiaco, It., 1928.
- LOMBARDO**, Guy (band leader); London, Can., June 19, 1902.
- LOOS**, Anita (novelist); Sisson, Calif., Apr. 26, 1893.
- LOPEZ**, Al (baseball manager); Tampa, Fla., Aug. 20, 1908.
- LOPEZ**, Vincent (band leader); Brooklyn, N. Y., Dec. 10, 1898.
- LOREN**, Sophia (Sofia Scicolone) (actress); Naples, It., Sept. 30, 1934.

- LOGRE, Peter** (actor); Rosenberg, Hung., June 26, 1904.
- LOUIS, Joe** (Joe Louis Barrow) (boxer); Lexington, Ala., May 13, 1914.
- LOVEJOY, Frank** (actor); New York City, Mar. 28.
- LOW, David** (cartoonist); Dunedin, N. Z., Apr. 7, 1891.
- LOWELL, Robert** (poet); Boston, Mass., Mar. 1, 1917.
- LOY, Myrna** (Myrna Williams) (actress); near Helena, Mont., Aug. 2, 1905.
- LUCE, Clare Boothe** (playwright, ex-ambassador to Italy); New York City, Apr. 10, 1903.
- LUCE, Henry R.** (publisher); Shantung, China, Apr. 3, 1898.
- LUKAS, Paul** (actor); Budapest, Hung., May 26, 1895.
- LUNT, Alfred** (actor); Milwaukee, Wis., Aug. 19, 1893.
- LUPINO, Ida** (actress); London, Eng., Feb. 4, 1918.
- LYNN, Diana** (Dolly Loehr) (actress); Los Angeles, Calif., Oct. 7, 1926.
- MacARTHUR, Douglas** (U. S. general); Little Rock Barracks, Ark., Jan. 26, 1880.
- MacDONALD, Jeanette** (soprano); Philadelphia, Pa., June 18, 1907.
- MacGRATH, Leueen** (actress & dramatist); London, Eng., July 3, 1914.
- MacLEISH, Archibald** (poet); Glencoe, Ill., May 7, 1892.
- MACMILLAN, Harold** (British Prime Minister); London, Eng., Feb. 10, 1894.
- MacRAE, Gordon** (singer); East Orange, N. J., Mar. 12, 1921.
- MADISON, Guy** (Robert Moseley) (actor); Bakersfield, Calif., Jan. 19, 1922.
- MAGLIE, Sal** (Salvatore) (baseball player); Niagara Falls, N. Y., Apr. 26, 1917.
- MAGNANI, Anna** (actress); Rome, It., Mar. 7, 1908.
- MAILER, Norman** (novelist); Long Branch, N. J., Jan. 31, 1923.
- MAIN, Marjorie** (actress); Acton, Ind., Feb. 24, 1890.
- MALENKOV, Georgi M.** (Soviet statesman); Orenburg, Rus., Jan. 8, 1902.
- MALONE, Dorothy** (actress) Chicago, Ill., Jan. 30, 1925.
- MALRAUX, André** (novelist); Paris, Fr., Nov. 3, 1895.
- MANGANO, Silvana** (actress); Rome, It.
- MANGRUM, Lloyd** (golfer); Dallas, Tex., Aug. 1, 1914.
- MANKIEWICZ, Joseph L.** (movie director); Wilkes-Barre, Pa., Feb. 11, 1909.
- MANSFIELD, Jayne** (actress); Bryn Mawr, Pa., Apr. 19, 1933.
- MANTLE, Mickey** (baseball player); Spavinaw, Okla., Oct. 20, 1931.
- MAO Tse-tung** (Chmn. of People's Council, Comm. China); Shao Shan, China, 1893.
- MARCH, Fredric** (Frederick Bickel) (actor); Racine, Wis., Aug. 31, 1897.
- MARCH, Hal** (Harold Mendelson) (actor); San Francisco, Calif., Apr. 22, 1920.
- MARCIANO, Rocky** (Rocco Francis Marchegiano) (boxer); Brockton, Mass., Sept. 1, 1924.
- MARITAIN, Jacques** (philosopher); Paris, Fr., Nov. 18, 1882.
- MARKOVA, Alicia** (ballerina); London, Eng., Dec. 1, 1910.
- MARQUAND, John P.** (novelist); Wilmington, Del., Nov. 10, 1893.
- MARSHALL, Catherine** (author); Johnson City, Tenn., Sept. 27, 1914.
- MARSHALL, George C.** (U. S. general); Uniontown, Pa., Dec. 31, 1880.
- MARSHALL, Herbert** (actor); London, Eng., May 23, 1890.
- MARSHALL, Thurgood** (lawyer); Baltimore, Md., July 2, 1908.
- MARTIN, Dean** (comedian); Steubenville, Ohio, June 7, 1917.
- MARTIN, Joseph W., Jr.** (U. S. Representative, Mass.); No. Attleboro, Mass., Nov. 3, 1884.
- MARTIN, Mary** (actress); Weatherford, Tex., Dec. 1, 1914.
- MARTIN, Tony** (actor & singer); San Francisco, Calif., Dec. 25, 1914.
- MARTIN, William McChesney, Jr.** (financial executive); St. Louis, Mo., Dec. 17, 1906.
- MARTINELLI, Giovanni** (tenor); Montagnana, It., Oct. 22, 1885.
- MARTINU, Bohuslav** (composer); Policka, Bohemia, Dec. 8, 1890.
- MARX, Chico** (Leonard) (comedian); New York City, Mar. 22, 1891.
- MARX, Groucho** (Julius) (comedian); New York City, Oct. 2, 1895.
- MARX, Harpo** (Arthur) (comedian); New York City, Nov. 23, 1893.
- MASEFIELD, John** (poet); Ledbury, Eng., June 1, 1878.
- MASON, F. van Wyck** (novelist); Boston, Mass., Nov. 11, 1901.
- MASON, James** (actor); Huddersfield, Eng., May 15, 1909.
- MASSEY, Raymond** (actor); Toronto, Can., Aug. 30, 1896.
- MASSINE, Léonide** (choreographer); Moscow, Rus., Aug. 9, 1896.
- MATHIAS, Bob** (athlete); Tulare, Calif., Nov. 17, 1930.
- MATTHEWS, Ed** (Edwin) (baseball player); Texarkana, Tex., Oct. 13, 1931.
- MATURE, Victor** (actor); Louisville, Ky., Jan. 19, 1916.
- MAUGHAM, William Somerset** (novelist); Paris, Fr., Jan. 25, 1874.
- MAULDIN, William H.** (cartoonist); Mountain Park, N. Mex., Oct. 29, 1921.
- MAUROIS, André** (Emile Herzog) (novelist); Elbeuf, Fr., July 26, 1885.
- MAXWELL, Elsa** (columnist); Keokuk, Iowa, May 24, 1883.
- MAYER, Dick** (golfer); Stamford, Conn., Aug. 29, 1922.
- MAYNOR, Dorothy** (soprano); Norfolk, Va., Sept. 3, 1910.
- MAYS, Willie** (baseball player); Fairfield, Ala., May 6, 1931.
- McBRIDE, Mary Margaret** (author); Paris, Mo., Nov. 16, 1899.
- McCAMBRIDGE, Mercedes** (actress); Joliet, Ill., Mar. 17, 1918.
- McCAREY, Leo** (movie director); Los Angeles, Calif., Oct. 3, 1898.
- McCARTHY, Joe** (baseball manager); Philadelphia, Pa., Apr. 21, 1887.

- McCLOY, John J. (banker); Philadelphia, Pa., Mar. 31, 1895.
- McCREA, Joel (actor); Los Angeles, Calif., Nov. 5, 1906.
- McCULLERS, Carson (author); Columbus, Ga., Feb. 19, 1917.
- McDONALD, David J. (labor leader); Pittsburgh, Pa., Nov. 22, 1902.
- McGEE, Fibber (James Jordan) (actor); Peoria, Ill., Nov. 16, 1896.
- McGEE, Molly (Marian Jordan) (actress); Peoria, Ill., Apr. 15, 1898.
- McGUIRE, Dorothy (actress); Omaha, Nebr., June 14, 1919.
- McKENNA, Siobhan (actress); Belfast, Ire., May 24, 1923.
- McLAGLEN, Victor (actor); Tunbridge Wells, Eng., Dec. 11, 1886.
- MEAD, Margaret (anthropologist); Philadelphia, Pa., Dec. 16, 1901.
- MEANY, George (labor leader); New York City, Aug. 16, 1894.
- MEDINA, Harold R. (U. S. jurist); Brooklyn, N. Y., Feb. 16, 1888.
- MEEKER Ralph (Ralph Rathgeber) (actor); Minneapolis, Minn., Nov. 21, 1920.
- MEIR, Golda (Golda Myerson) (Israeli statesman); Kiev, Rus.
- MEITNER, Lise (physicist); Vienna, Aus., Nov. 7, 1878.
- MELCHIOR, Lauritz (tenor); Copenhagen, Den., Mar. 20, 1890.
- MELTON, James (tenor); Moultrie, Ga., Jan. 2, 1904.
- MENDÈS-FRANCE, Pierre (French statesman); Paris, Fr., Jan. 11, 1905.
- MENJOU, Adolphe (actor); Pittsburgh, Pa., Feb. 18, 1890.
- MENOTTI, Gian-Carlo (composer); Cadegliano, It., July 7, 1911.
- MENUHIN, Yehudi (violinist); New York City, Apr. 22, 1916.
- MENZIES, Robert Gordon (Prime Minister, Australia); Jeparit, Australia, Dec. 20, 1894.
- MERCER, Johnny (singer & song writer); Savannah, Ga., Nov. 18, 1909.
- MEREDITH, Burgess (actor); Cleveland, Ohio, Nov. 16, 1908.
- MERMAN, Ethel (Ethel Zimmerman) (actress & singer); Astoria, N. Y., Jan. 16, 1909.
- MERRILL, Robert (baritone); Brooklyn, N. Y., June 4, 1919.
- MERTON, Thomas (poet & religious writer); Prades, Fr., Jan. 31, 1915.
- MESTA, Perle (hostess); Sturgis, Mich., 1891.
- MESTROVIĆ, Ivan (sculptor); Vrpolje, Yugos., Aug. 15, 1883.
- METALIOUS, Grace (author); Manchester, N. H., Sept. 8, 1924.
- MEYER, Eugene (publisher); Los Angeles, Calif., Oct. 31, 1875.
- MICHENER, James A. (novelist); New York City, Feb. 3, 1907.
- MIDDLECOFF, Cary (golfer); Halls, Tenn., Jan. 6, 1921.
- MIELZINER, Jo (stage designer); Paris, Fr., Mar. 19, 1901.
- MILANOV, Zinka (soprano); Zagreb, Yugos., May 17, 1908.
- MILHAUD, Darius (composer); Aix-en-Provence, Fr., Sept. 4, 1892.
- MILLAND, Ray (actor); Neath, Wales, Jan. 3, 1907.
- MILLER, Arthur (dramatist); New York City, 1915.
- MILLER, Gilbert (theatrical producer); New York City, July 3, 1884.
- MILSTEIN, Nathan (violinist); Odessa, Russ., Dec. 31, 1904.
- MIRÓ, Joan (painter); Barcelona, Sp., Apr. 21, 1893.
- MITCHELL, James P. (Secy. of Labor, U. S. Elizabeth, N. J., Nov. 12, 1902.
- MITCHELL, Thomas (actor); Elizabeth, N. J., July 11, 1895.
- MITCHUM, Robert (actor); Rising Sun, Del.
- MITROPOULOS, Dimitri (orchestra conductor); Athens, Gr., Feb. 18, 1896.
- MOISEWITSCH, Benno (pianist); Odessa, Rus., Feb. 22, 1890.
- MOLLET, Guy (French statesman); Flers, Orne, Fr., Dec. 31, 1905.
- MOLOTOV, Vyacheslav M. (V. M. Skryabin) (Soviet statesman); Kukarka, Rus., Mar. 9, 1890.
- MONROE, Marilyn (Norma Daugherty) (actress); Los Angeles, June 1, 1928.
- MONROE, Vaughn (band leader); Akron, Ohio, Oct. 7, 1912.
- MONSARRAT, Nicholas (novelist); Liverpool, Eng., Mar. 22, 1910.
- MONTEUX, Pierre (orchestra conductor); Paris, Fr., Apr. 4, 1875.
- MONTGOMERY, Robert (Henry, Jr.) (actor); Beacon, N. Y., May 21, 1904.
- MOORE, Archie (boxer); Collinsville, Ill., Dec. 13, 1916.
- MOORE, Garry (Thomas Garrison Morfit) (comedian); Baltimore, Md., Jan. 31, 1915.
- MOORE, Henry (sculptor); Castleford, Eng., July 30, 1898.
- MOORE, Marianne (poet); Kirkwood, Mo., Nov. 15, 1887.
- MOORE, Terry (Helen Koford) (actress); Los Angeles, Calif., Jan. 7, 1929.
- MOORE, Victor (actor); Hammononton, N. J., Feb. 24, 1876.
- MOOREHEAD, Agnes (actress); Clinton, Mass., Dec. 6, 1906.
- MORINI, Erica (violinist); Vienna, Aus., Jan. 5, 1910.
- MORLEY, Robert (actor); Wiltshire, Eng., May 26, 1908.
- MOSES, Grandma (Anna Mary Robertson) (painter); Greenwich, N. Y., Sept. 7, 1860.
- MOSES, Robert (NYC public official); New Haven, Conn., Dec. 18, 1888.
- MUMFORD, Lewis (author); Flushing, N. Y., Oct. 19, 1895.
- MUNCH, Charles (orchestra conductor); Strasbourg, Ger., Sept. 1891.
- MUNI, Paul (Muni Weisenfreund) (actor); Lemberg, Aus., Sept. 22, 1895.
- MUNSEL, Patrice (soprano); Spokane, Wash., May 14, 1925.
- MURPHY, George (actor); New Haven, Conn., July 4, 1904.
- MURRAY, Arthur (dancing teacher); New York City, Apr. 4, 1895.
- MURRAY, Ken (Don Court) (actor); New York City, July 14, 1903.
- MURRAY, Thomas E. (bus. exec.); Albany, N. Y., June 20, 1891.

- MURROW, Edward R. (radio commentator); Greensboro, N. C.
- MUSIAL, Stan (baseball player); Donora, Pa., Nov. 21, 1920.
- NAISH, J. Carrol (actor); New York City, Jan. 21, 1900.
- NASH, Ogden (poet); Rye, N. Y., Aug. 19, 1902.
- NASSER, Gamal Abdel (Premier, Egypt); Egypt, c.1918.
- NATHAN, Robert (novelist); New York City, Jan. 2, 1894.
- NATWICK, Mildred (actress); Baltimore, Md., June 19, 1908.
- NEHRU, Jawaharlal (Prime Minister, India); Allahabad, India, Nov. 14, 1889.
- NELSON, Ozzie (Oswald) (band leader); Jersey City, N. J., 1906.
- NENNI, Pietro (Italian Socialist leader); Faenza, It., Feb. 9, 1891.
- NEVINS, Allan (historian); Camp Point, Ill., May 20, 1890.
- NEWCOMBE, Don (baseball player); Madison, N. J., July 14, 1926.
- NEWHOUSE, Samuel I. (newspaperman); New York City, May 24, 1895.
- NGO DINH DIEM (Vietnam statesman); Quang Binh, Annam, 1901.
- NIEBUHR, Reinhold (theologian); Wright City, Mo., June 21, 1892.
- NIVEN, David (actor); Kirriemuir, Scot., Mar. 1, 1910.
- NIXON, Richard M. (Vice President, U. S.); Yorba Linda, Calif., Jan. 9, 1913.
- NKRUMAH, Kwame (Ghana statesman); Nkroful, Br. W. Af., 1909.
- NOGUCHI, Isamu (sculptor); Los Angeles, Calif., Nov. 7, 1904.
- NOLAN, Lloyd (actor); San Francisco, Calif., Aug. 11, 1902.
- NORRIS, Kathleen (novelist); San Francisco, Calif., July 16, 1880.
- NORSTAD, Gen. Lauris (Supr. Comdr. NATO); Minneapolis, Minn., Mar. 24, 1907.
- NOVAES, Gulomar (pianist); São João de Boa Vista, Braz., Feb. 28, 1895.
- NOVAK, Kim (Marilyn Novak) (actress); Chicago, Ill., Feb. 13, 1933.
- NOVOTNA, Jarmila (soprano); Prague, Czechoslovakia, Sept. 23, 1911.
- NUGENT, Elliott (author, actor & director); Dover, Ohio, Sept. 20, 1899.
- NUXHALL, Joe (baseball player); Hamilton, Ohio, July 30, 1928.
- OBERON, Merle (Merle O'Brien Thompson) (actress); Tasmania, Feb. 19, 1911.
- O'BRIAN, Hugh (Hugh J. Krampe) (actor); Rochester, N. Y., Apr. 19, 1925.
- O'BRIEN, Edmond (actor); New York City, Sept. 10, 1915.
- O'BRIEN, Margaret (actress); San Diego, Calif., Jan. 15, 1937.
- O'BRIEN, Pat (actor); Milwaukee, Wis., Nov. 11, 1899.
- O'CASEY, Sean (dramatist); Dublin, Ire., 1881.
- O'CONNOR, Donald (actor); Chicago, Ill., Aug. 28, 1925.
- ODETS, Clifford (dramatist); Philadelphia, Pa., July 18, 1906.
- O'FAOLAIN, Seán (story writer); Cork, Ire., Feb. 22, 1900.
- O'FLAHERTY, Liam (novelist); Aran Is., Ire., 1897.
- O'HARA, John (novelist); Pottsville, Pa., Jan. 31, 1905.
- O'HARA, Maureen (Maureen FitzSimons) (actress); Milltown, Ire., Aug. 17, 1921.
- OISTRAKH, David (violinist); Odessa, Russ., 1908.
- O'KEEFFE, Georgia (painter); Sun Prairie, Wis., Nov. 15, 1887.
- O'KELLY, Seán T. (President, Ireland); Dublin, Ire., Aug. 25, 1882.
- OLAF V (King, Norway); Sandringham, Eng., July 2, 1903.
- OLIVIER, Sir Laurence (actor); Dorking, Eng., May 22, 1907.
- OPPENHEIMER, J. Robert (physicist); New York City, Apr. 22, 1904.
- ORMANDY, Eugene (orchestra conductor); Budapest, Hung., Nov. 18, 1899.
- OTT, Mel (Melvin T.) (baseball player and announcer); Gretna, La., Mar. 2, 1909.
- OWENS, Jesse (sprinter); Decatur, Ala., Sept. 12, 1913.
- PARR, Jack (comedian); Canton, Ohio, May 1, 1918.
- PAGE, Patti (Clara Ann Fowler) (singer); Claremore, Okla., 1927.
- PALANCE, Jack (actor); Latimer, Pa., Feb. 18, 1920.
- PALEY, William S. (broadcasting executive); Chicago, Ill., Sept. 28, 1901.
- PALMER, Lilli (actress); Posen, Germany, May 27, 1917.
- PARKER, Dorothy (poet & story writer); West End, N. J., Aug. 22, 1893.
- PARKER, Eleanor (actress); Cedarville, Ohio, June 26, 1922.
- PARKER, Fess (actor); Ft. Worth, Tex., Aug. 16, 1927.
- PARSONS, Louella O. (columnist); Freeport, Ill., Aug. 6, 1893.
- PASTERNAK, Joseph (movie producer); Simleul-Silvaniei, Rum., Sept. 19, 1901.
- PATON, Alan (novelist); Pietermaritzburg, So. Af., Jan. 11, 1903.
- PATTERSON, Floyd (boxer); Waco, N. C., Jan. 4, 1935.
- PAUL I (King, Greece); Athens, Gr., Dec. 14, 1901.
- PAULING, Linus Carl (chemist); Portland, Oreg., Feb. 28, 1901.
- PEALE, Norman Vincent (clergyman & author); Bowersville, Ohio, May 31, 1898.
- PEARSON, Drew (columnist); Evanston, Ill., Dec. 13, 1897.
- PEARSON, Hesketh (author); Hawford, Worcs., Eng., Feb. 20, 1887.
- PEARSON, Lester B. (Canadian statesman); Toronto, Ont., Can., Apr. 23, 1897.
- PEATIE, Donald Culross (nature writer); Chicago, Ill., June 21, 1898.
- PECK, Gregory (actor); La Jolla, Calif., Apr. 5, 1916.
- PEERCE, Jan (Tenor); N. Y. C., 1904.
- PEGLER, Westbrook (columnist); Minneapolis, Minn., Aug. 2, 1894.

- PERELMAN, S. J. (Sidney J.); (humorist); Brooklyn, N. Y., Feb. 1, 1904.
- PERKINS, Tony (Anthony) (actor); New York City, Apr. 14, 1932.
- PERÓN, Juan D. (former President, Argentina); nr. Lobos, Arg., Oct. 8, 1895.
- PETERS, Roberta (Roberta Peterman) (soprano); New York City, May 4, 1930.
- PETRI, Egon (pianist); Hanover, Ger., Mar. 23, 1881.
- PETRILLO, James C. (labor leader); Chicago, Ill., Mar. 16, 1892.
- PHILIP (Philip Mountbatten) (Duke of Edinburgh); Corfu, June 10, 1921.
- PIATIGORSKY, Gregor (cellist); Ekaterinoslav, Rus., Apr. 17, 1903.
- PICASSO, Pablo (painter); Málaga, Sp., Oct. 25, 1881.
- PICCARD, Auguste (physicist); Basel, Switz., Jan. 28, 1884.
- PICCARD, Jean Félix (aeronautics engineer); Basel, Switz., Jan. 28, 1884.
- PICKFORD, Mary (Gladys Mary Smith) (actress); Toronto, Can., Apr. 8, 1893.
- PIDGEON, Walter (actor); East St. John, Can., Sept. 23, 1898.
- PIERCE, Billy (baseball player); Detroit, Mich., Apr. 2, 1927.
- PITTS, Zasu (actress); Parsons, Kans., Jan. 3, 1898.
- PIUS XII (Eugenio Pacelli) (Pope); Rome, It., Mar. 2, 1876.
- PODRES, Johnny (baseball player); Witherbee, N. Y., Sept. 30, 1932.
- PONS, Lily (soprano); Cannes, Fr., Apr. 13, 1904.
- PORTER, Cole (song writer); Peru, Ind., June 9, 1893.
- PORTER, Katherine Anne (story writer); Indian Creek, Tex., May 15, 1894.
- PORTERFIELD, Bob (baseball player); Newport, Va., Aug. 10, 1924.
- POST, Emily (author on etiquette); Baltimore, Md., Oct. 3, 1873.
- POULENC, Francis (composer); Paris, Fr., Jan. 7, 1899.
- POWELL, Dick (actor); Mt. View, Ark., Nov. 14, 1904.
- POWELL, Jane (Suzanne Burce) (actress); Portland, Oreg., Apr. 1, ??.
- POWELL, William (actor); Pittsburgh, Pa., July 29, 1892.
- POWER, Tyrone (actor); Cincinnati, Ohio, May 5, 1914.
- PREMINGER, Otto (movie producer & director); Vienna, Aus., Dec. 5, 1906.
- PRESLEY, Elvis (singer); Tupelo, Miss., Jan. 8, 1935.
- PRICE, George (cartoonist); Coytesville, N. J., June 9, 1901.
- PRICE, Vincent (actor); St. Louis, Mo., May 27, 1911.
- PRIESTLEY, J. B. (John B.) (novelist & dramatist); Bradford, England, Sept. 13, 1894.
- PRIMROSE, William (violinist); Glasgow, Scot., Aug. 23, 1904.
- PRIMUS, Pearl (dancer); Trinidad, B. W. I., Nov. 29, 1921.
- PUSEY, Nathan M. (educator); Council Bluffs, Iowa, Apr. 4, 1907.
- QUINN, Anthony (actor); Chihuahua, Mex., Apr. 21, 1915.
- RABI, Isidor (physicist); Austria, July 29, 1898.
- RAFT, George (actor); New York City, Sept. 27, 1922.
- RAINIER III (Sovereign Prince of Monaco); Monaco, May 31, 1923.
- RAINS, Claude (actor); London, Eng., Nov. 10, 1889.
- RANK, J. Arthur (movie producer); Huddersfield, Eng., Dec. 23, 1888.
- RANSOM, John Crowe (poet); Pulaski, Tenn., Apr. 30, 1888.
- RATHBONE, Basil (actor); Johannesburg, S. A., June 13, 1892.
- RATOFF, Gregory (movie director); St. Petersburg, Rus., Apr. 20, 1897.
- RATTIGAN, Terence (dramatist); London, Eng., June 10, 1911.
- RATNER, Abraham (painter); Poughkeepsie, N. Y., July 8, 1895.
- RAY, Johnnie (singer); Roseburg, Oreg., Jan. 10, 1927.
- RAYBURN, Sam (Speaker of House, U. S.); Roane Co., Tenn., Jan. 6, 1882.
- RAYE, Martha (Margie Yvonne Reed) (actress); Butte, Mont., Aug. 27, 1916.
- REAGAN, Ronald (actor); Tampico, Ill.
- REDGRAVE, Michael (actor); Bristol, Eng., Mar. 20, 1908.
- REED, Stanley F. (former U. S. jurist); Mason Co., Ky., Dec. 31, 1884.
- REESE, Pee Wee (Harold) (baseball player); Ekron, Ky., July 23, 1919.
- REID, Helen Rogers (publisher); Appleton, Wis., Nov. 23, 1882.
- REINER, Carl (actor); New York City, Mar. 20, 1922.
- REINER, Fritz (orchestra conductor); Budapest, Hung., Dec. 19, 1888.
- REMARQUE, Erich Maria (novelist); Osnabrück, Ger., June 22, 1898.
- RENNIE, Michael (actor); Bradford, Yorks., Eng., Aug. 25, 1909.
- RESTON, James (journalist); Clydebank, Scot., Nov. 3, 1909.
- REUTHER, Walter P. (labor leader); Wheeling, W. Va., Sept. 1, 1907.
- REYNAUD, Paul (French statesman); Barcelona, Fr., Oct. 15, 1878.
- REYNOLDS, Debbie (Mary Reynolds) (actress); El Paso, Tex., Apr. 1, 1932.
- RHEE, Syngman (President, South Korea); Seoul, Kor., Mar. 26, 1875.
- RICE, Elmer (Elmer Reizenstein) (dramatist); New York City, Sept. 28, 1892.
- RICHARD, Maurice (hockey player); Montreal, Que., Can., Aug. 4, 1921.
- RICHARDS, Paul (baseball manager); Waxahachie, Tex., Nov. 21, 1908.
- RICHARDSON, Sir Ralph (actor); Cheltenham, Eng., Dec. 19, 1902.
- RICKENBACKER, Eddie (Edward V.) (airline executive); Columbus, Ohio, Oct. 8, 1890.
- RICKEY, Branch (baseball executive); Stockdale, Ohio, Dec. 20, 1881.
- RIDGWAY, Gen. Matthew B. (Army officer U. S.); Ft. Monroe, Va., Mar. 3, 1895.
- RINEHART, Mary Roberts (novelist); Pittsburgh, Pa.

- RITCHARD**, Cyril (actor); Sydney, Australia, Dec. 1, 1898.
- RITTER**, Thelma (actress); Brooklyn, N. Y., Feb. 14, 1905.
- RIZZUTO**, Phil (baseball player and announcer); New York City, Sept. 25, 1918.
- ROARK**, Helen Wills Moody (tennis player); Centerville, Calif., Oct. 6, 1905.
- ROBBINS**, Jerome (Jerome Rabinowitz) (choreographer); NYC, Oct. 11, 1918.
- ROBERTS**, Robin (baseball player); Springfield, Ill., Sept. 30, 1926.
- ROBESON**, Paul (baritone); Princeton, N. J., Apr. 9, 1898.
- ROBINSON**, Edward G. (Emmanuel Goldenberg) (actor); Bucharest, Rum., Dec. 12, 1893.
- ROBINSON**, Frank (baseball player); Beaumont, Tex., Aug. 31, 1935.
- ROBINSON**, Jackie (baseball player); Cairo, Ga., Jan. 31, 1919.
- ROBINSON**, Ray (boxer); Detroit, Mich., May 3, 1920.
- ROBSON**, Flora (actress); South Shields, Eng., Mar. 28, 1902.
- ROCHESTER** (Eddie Anderson) (comedian); Oakland, Calif., Sept. 18, 1905.
- ROCKEFELLER**, David (business executive); New York City, June 12, 1915.
- ROCKEFELLER**, John D., Jr. (industrialist); Cleveland, Ohio, Jan. 29, 1874.
- ROCKEFELLER**, John D., 3rd (business executive); New York City, Mar. 21, 1906.
- ROCKEFELLER**, Laurance S. (business executive); New York City, May 26, 1910.
- ROCKEFELLER**, Nelson A. (Administrative Assistant to President, U. S.); Bar Harbor, Maine, July 8, 1908.
- ROCKEFELLER**, Winthrop (business executive); New York City, May 1, 1912.
- ROCKWELL**, Norman (illustrator); New York City, Feb. 3, 1894.
- RODGERS**, Richard (song writer); New York City, June 28, 1902.
- RODZINSKI**, Artur (orchestra conductor); Spalato, Dalmatia, Jan. 2, 1892.
- ROGERS**, Buddy (Charles) (actor); Olathe, Kans., Aug. 13, 1904.
- ROGERS**, Ginger (Virginia McMath) (actress); Independence, Mo., July 16, 1911.
- ROGERS**, Roy (Leonard Slye) (actor); Cincinnati, Ohio, Nov. 5, 1912.
- ROGERS**, Will, Jr. (actor); New York City, Oct. 20, 1911.
- ROMAINS**, Jules (Louis Farigoule) (novelist); Saint-Julien Chapeuil, Fr., Aug. 26, 1885.
- ROME**, Harold (song writer); Hartford, Conn., May 27, 1908.
- ROMERO**, Cesar (actor); New York City, Feb. 15, 1907.
- ROMULO**, Carlos P. (Philippine statesman); Manila, Phil., Jan. 14, 1899.
- ROONEY**, Mickey (Joe Yule, Jr.) (actor); Brooklyn, N. Y., Sept. 23, 1922.
- ROOSEVELT**, Eleanor (U. S. statesman); New York City, Oct. 11, 1884.
- ROSE**, Billy (Wm. S. Rosenberg) (stage producer); New York City, Sept. 6, 1899.
- ROSEWALL**, Ken (tennis player); Sydney, NSW, Australia, Nov. 2, 1934.
- ROSSELINI**, Roberto (movie director); Rome, It., May 8, 1906.
- RUBINSTEIN**, Artur (pianist); Warsaw, Pol., Jan. 28, 1889.
- RUGGLES**, Charles (actor); Los Angeles, Calif., Feb. 8, 1892.
- RUSSELL**, Bertrand (philosopher); Trelleck, Eng., May 18, 1872.
- RUSSELL**, Jane (actress); Bemidji, Minn., June 21, 1921.
- RUSSELL**, Rosalind (actress); Waterbury, Conn., June 4, 1912.
- RYAN**, Robert (actor); Chicago, Ill., Nov. 11, 1913.
- SABLON**, Jean (singer); Paris, Fr., Mar. 25, 1912.
- SACKVILLE-WEST**, Victoria (poet & novelist); Sevenoaks, Eng., Mar. 9, 1892.
- SADDLER**, Sandy (Joe) (boxer); Boston, Mass., June 28, 1926.
- SAINT**, Eva Marie (actress); Newark, N. J., July 4, 1924.
- ST. DENIS**, Ruth (Ruth Denis) (dancer); Newark, N. J., Jan. 20, 1880.
- ST. LAURENT**, Louis Stephen (Canadian statesman); Compton, Que., Can., Feb. 1, 1882.
- SALAZAR**, António de Oliveira (Premier, Portugal); Santa Comba, Port., 1889.
- SALINGER**, J. D. (novelist); New York City, Jan. 1, 1919.
- SALK**, Jonas (physician); New York City, Oct. 28, 1914.
- SANDBURG**, Carl (poet & biographer); Galesburg, Ill., Jan. 6, 1878.
- SANDE**, Earl (horse trainer); Groton, S. Dak., Nov. 19, 1898.
- SANDERS**, George (actor); St. Petersburg, Rus., 1906.
- SARAZEN**, Gene (golfer); Harrison, N. Y., Feb. 27, 1902.
- SARNOFF**, David (radio executive); Uziian, Rus., Feb. 27, 1891.
- SAROYAN**, William (story writer & dramatist); Fresno, Calif., Aug. 31, 1908.
- SARTRE**, Jean-Paul (philosopher); Paris, Fr., June 21, 1905.
- SAVO**, Jimmie (entertainer); New York City, 1895.
- SAYÃO**, Bidú (soprano); Rio de Janeiro, Braz., May 11, 1906.
- SCHAEFER**, Jake (billiards player); Chicago, Ill., Oct. 18, 1894.
- SCHARY**, Dore (movie producer); Newark, N. J., Aug. 31, 1905.
- SCHEFFING**, Bob (Robert) (baseball manager); Overland, Mo., Aug. 11, 1915.
- SCHIAPARELLI**, Elsa (fashion designer); Rome, It.
- SCHILDKRAUT**, Joseph (actor); Vienna, Aus., Mar. 22, 1895.
- SCHIPA**, Tito (tenor); Lecce, It., Jan. 2, 1890.
- SCHLESINGER**, Arthur M., Jr. (historian); Columbus, Ohio, Oct. 15, 1917.
- SCHLESINGER**, Arthur M., Sr. (historian); Xenia, Ohio, Feb. 27, 1888.
- SCHOENDIENST**, Al (Albert) (baseball player); Germantown, Ill., Feb. 2, 1923.
- SCHULBERG**, Budd (novelist); New York City, Mar. 27, 1914.
- SCHUMAN**, Robert (French statesman); Luxembourg, Luxem., June 29, 1886.

- SCHUMAN, William (composer); New York City, Aug. 4, 1910.
 SCHWARTZ, Maurice (actor); Sedikow, Ukr., June 18, 1890.
 SCHWARZKOPF, Elisabeth (soprano); Jarotschin, Posen, Ger., Dec. 9, 1915.
 SCHWEITZER, Albert (organist, physician & philosopher); Kayserburg, Alsace, Jan. 14, 1875.
 SCORE, Herb (baseball player); Rosedale, N. Y., June 7, 1933.
 SCOTT, Barbara Ann (skater); Ottawa, Can., May 9, 1928.
 SCOTT, Hazel (pianist); Port of Spain, Trin., June 11, 1920.
 SCOTT, Martha (actress); Jamesport, Mo., Sept. 22, 1916.
 SCOTT, Randolph (actor); Orange Co., Va., Jan. 23, 1903.
 SCOTT, Raymond (band leader); Brooklyn, N. Y., Sept. 10, 1909.
 SCOTT, Zachary (actor); Austin, Tex., Feb. 24, 1914.
 SEABORG, Glenn T. (nuclear chemist); Ishpeming, Mich., Apr. 19, 1912.
 SEATON, Frederick A. (Secy. of Int., U. S.); Washington, D. C., Dec. 11, 1909.
 SEDGMAN, Frank (tennis player); Mont Albert, Victoria, Austr., Oct. 29, 1927.
 SEGOVIA, Andrés (guitarist); Linares, Sp., Feb. 18, 1894.
 SEGURA, Francisco (tennis player); Guayaquil, Ec., June 20, 1921.
 SEIXAS, E. Victor, Jr. (tennis player); Philadelphia, Pa., Aug. 30, 1923.
 SELZNICK, David O. (movie producer); Pittsburgh, Pa., May 10, 1902.
 SERKIN, Rudolf (pianist); Eger, Boh., Mar. 28, 1903.
 SESSIONS, Roger (composer); Brooklyn, N. Y., Dec. 28, 1896.
 SCHANTZ, Bobby (baseball player); Pottstown, Pa., Sept. 26, 1925.
 SHAPLEY, Harlow (astronomer); Nashville, Mo., Nov. 2, 1885.
 SHARETT, Moshé (Moshé Shertok) (Israeli statesman); Kherson, Rus., Oct. 3, 1894.
 SHAUGHNESSY, Frank J. (baseball executive); Albion, Ill., Apr. 8, 1885.
 SHAW, Artie (clarinetist); New York City, May 23, 1910.
 SHAW, Irwin (dramatist & novelist); New York City, Feb. 27, 1913.
 SHAW, Robert (choral director); Red Bluff, Calif., Apr. 30, 1916.
 SHEARER, Moira (Moira Shearer King) (ballerina); Dunfermline, Flies., Scot., Jan. 17, 1926.
 SHEAN, Vincent (novelist & essayist); Pana, Ill., Dec. 5, 1899.
 SHEEN, Fulton J. (clergyman & author); El Paso, Ill., May 8, 1895.
 SHERIDAN, Ann (actress); Denton, Tex., Feb. 21, 1915.
 SHERRIFF, Robert (dramatist); Kingston-on-Thames, Eng., June 6, 1896.
 SHOEMAKER, Willie (jockey); Fabens, Tex., Aug. 19, 1931.
 SHOLOKHOV, Mikhail (novelist); Veshenskaya, Rus., 1905.
 SHORE, Dinah (singer); Winchester, Tenn., Mar. 1, 1917.
 SHOSTAKOVICH, Dmitri (composer); St. Petersburg, Rus., Sept. 26, 1906.
 SHRINER, Herb (comedian); Toledo, Ohio, May 29, 1918.
 SHULMAN, Max (humorist); St. Paul, Minn., Mar. 14, 1919.
 SHUMLIN, Herman (theatrical producer); Atwood, Colo., Dec. 6, 1898.
 SIKORSKY, Igor I. (aircraft designer); Kiev, Rus., May 25, 1889.
 SILONE, Ignazio (Secondo Tranquilli) (novelist); Pescina del Marsi, It., May 1, 1900.
 SILVERS, Phil (Philip Silversmith) (comedian); Brooklyn, N. Y., May 11, 1912.
 SIMENON, Georges (Georges Sim) (novelist); Liège, Belg., Feb. 13, 1903.
 SIMMONS, Curt (baseball player); Egypt, Pa., May 19, 1929.
 SIMMONS, Jean (actress); Crouch Hill, London, Eng., Jan. 31, 1929.
 SIMONSON, Lee (stage designer); New York City, June 26, 1888.
 SINATRA, Frank (singer & actor); Hoboken, N. J., Dec. 12, 1917.
 SINCLAIR, Upton (novelist); Baltimore, Md., Sept. 20, 1878.
 SIQUEIROS, David (painter); Mexico, 1894.
 SITWELL, Edith (poet); Scarborough, Eng., 1887.
 SITWELL, Sir Osbert (poet & satirist); London, Eng., Dec. 6, 1892.
 SKELTON, Red (Richard) (comedian); Vincennes, Ind., July 18, 1913.
 SKINNER, Cornelia Otis (actress); Chicago, Ill., May 30, 1901.
 SLAUGHTER, Enos (baseball player); Roxboro, N. C., Apr. 27, 1916.
 SLEZAK, Walter (actor); Vienna, Aus., May 3, 1902.
 SLOAN, Alfred P., Jr. (business executive); New Haven, Conn., May 23, 1875.
 SMITH, Betty (novelist); Brooklyn, N. Y., Dec. 15, 1904.
 SMITH, H. Allen (humorist); McLeansboro, Ill., Dec. 19, 1907.
 SMITH, Kate (Kathryn) (singer); Washington, D. C., 1910.
 SMITH, Lillian (novelist); Jasper, Florida, 1897.
 SMITH, Red (Walter) (sports writer); Green Bay, Wis., Sept. 25, 1905.
 SMYTHE, Conn (hockey executive); Toronto, Ont., Can., Feb. 1, 1895.
 SNEAD, Sam (golfer); Hot Springs, Va., May 27, 1912.
 SNIDER, Duke (Edwin) (baseball player); Los Angeles, Calif., Sept. 19, 1926.
 SOTHERN, Ann (Harriette Lake) (actress); Valley City, N. Dak., Jan. 22, 1911.
 SPAAK, Paul Henri (Belgian statesman); Brussels, Belg., Jan. 25, 1899.
 SPAHN, Warren (baseball player); Buffalo, N. Y., Apr. 23, 1921.
 SPEAKER, Tris (baseball player); Hubbard, Tex., Apr. 4, 1888.
 SPENDER, Stephen (poet); nr. London, Eng., Feb. 28, 1909.
 SPEWACK, Bella (dramatist); Hungary, 1899.
 SPEWACK, Sam (dramatist); Russia, 1899.
 SPILLANE, Mickey (Frank Spillane) (novelist); Brooklyn, N. Y., Mar. 9, 1918.

- SPOCK**, Benjamin (pediatrician); New Haven, Conn., May 2, 1903.
- SPROUL**, Robert G. (educator); San Francisco, Calif., May 22, 1891.
- STAGG**, A. Alonzo (football coach); West Orange, N. J., Aug. 16, 1862.
- STANLEY**, Kim (Patricia Reid) (actress); Tularosa, N. Mex., Feb. 11, 1925.
- STANWYCK**, Barbara (Ruby Stevens) (actress); Brooklyn, N. Y., July 16, 1907.
- STASSEN**, Harold E. (U. S. administrator); West St. Paul, Minn., Apr. 13, 1907.
- STEBER**, Eleanor (soprano); Wheeling, W. Va., July 17, 1916.
- STEFANSSON**, Vilhjalmur (explorer); Arnes, Can., Nov. 3, 1879.
- STEICHEN**, Edward (photographer); Luxemburg, May 27, 1879.
- STEINBECK**, John (novelist); Salinas, Calif., Feb. 27, 1902.
- STEINBERG**, Saul (cartoonist); Ramnic-Sarat, Rum., June 15, 1914.
- STENGEL**, Casey (Charles D.) (baseball manager); Kansas City, Mo., July 30, 1891.
- STERN**, Isaac (violinist); Kremnietz, Rus., July 21, 1920.
- STEVENS**, George (movie producer); Oakland, Calif., 1905.
- STEVENS**, Mark (actor); Cleveland, Ohio, Dec. 13.
- STEVENS**, Rlsé (mezzo-soprano); New York City, June 11, 1913.
- STEVENSON**, Adlai E. (U. S. statesman); Los Angeles, Calif., Feb. 5, 1900.
- STEWART**, James (actor); Indiana, Pa., May 20, 1908.
- STICKNEY**, Dorothy (actress); Dickinson, N. Dak., June 21, 1900.
- STOKOWSKI**, Leopold (orchestra conductor); London, Eng., Apr. 18, 1882.
- STONE**, Edward D. (architect); Fayetteville, Ark., Mar. 9, 1902.
- STONE**, Irving (biographer), San Francisco, Calif., July 14, 1903.
- STRANAHAN**, Frank R. (golfer); Toledo, Ohio, Aug. 5, 1922.
- STRASBERG**, Susan (actress); New York City, May 22, 1938.
- STRAUSS**, Lewis L. (former AEC Chmn., U. S.); Charleston, W. Va., Jan. 31, 1896.
- STRAVINSKY**, Igor (composer); Oranienbaum, Rus., June 17, 1882.
- STREETER**, Edward (novelist); New York City, Aug. 1, 1891.
- STRONG**, Ken (football player); West Haven, Conn., Apr. 21, 1906.
- STURDIVANT**, Tom (baseball player); Gordon, Kans., Apr. 28, 1930.
- STURGES**, Preston (dramatist & director); Chicago, Ill., Aug. 29, 1898.
- SUCKOW**, Ruth (novelist); Hawarden, Iowa, Aug. 6, 1892.
- SULLAVAN**, Margaret (actress); Norfolk, Va., May 16, 1911.
- SULLIVAN**, Barry (Patrick Barry) (actor); New York City, Aug. 29, 1912.
- SULLIVAN**, Ed (columnist & TV performer); New York City, Sept. 28, 1902.
- SULLIVAN**, Frank (baseball player); Burbank, Calif., Jan. 23, 1930.
- SULLIVAN**, Frank (humorist); Saratoga Springs, N. Y., Sept. 22, 1892.
- SULZBERGER**, Arthur H. (publisher); New York City, Sept. 12, 1891.
- SUMMERFIELD**, Arthur E. (Postmaster General of U. S.); Pinconning, Mich., Mar. 17, 1899.
- SWANSON**, Gloria (Josephine Swenson) (actress); Chicago, Ill., Mar. 27, 1898.
- SWARTHOUT**, Gladys (mezzo-soprano); Deepwater, Mo., Dec. 25, 1904.
- SZELL**, George (orchestra conductor); Budapest, Hung., June 7, 1897.
- SZIGETI**, Joseph (violinist); Budapest, Hung., Sept. 5, 1892.
- TAGLIAVINI**, Ferruccio (tenor); Reggio Emilia, It., Aug. 14, 1913.
- TALBERT**, Billy (tennis player); Cincinnati, Ohio, Sept. 4, 1918.
- TALBURT**, Harold M. (cartoonist); Toledo, Ohio, Feb. 19, 1895.
- TALLCHIEF**, Maria (ballerina); Fairfax, Okla., Jan. 24, 1925.
- TANDY**, Jessica (actress); London, Eng., June 7, 1909.
- TATE**, Allen (poet); Winchester, Ky., Nov. 19, 1899.
- TAYLOR**, Deems (composer); New York City, Dec. 22, 1885.
- TAYLOR**, Elizabeth (actress); London, Eng., Feb. 27, 1932.
- TAYLOR**, Gen. Maxwell D. (Chief of Staff, U. S. Army); Keytesville, Mo., Aug. 26, 1901.
- TAYLOR**, Robert (S. Arlington Brugh) (actor); Filley, Nebr., Aug. 5, 1911.
- TEBALDI**, Renata (soprano); Pesaro, It., Jan. 2, 1922.
- TEBBETTS**, Birdie (George R.) (baseball manager); Nashua, N. H., Nov. 10, 1914.
- TELLER**, Edward (physicist); Budapest, Hung., Jan. 15, 1908.
- TEMPLE**, John (baseball player); Lexington, N. C., Aug. 8, 1929.
- TEMPLE**, Shirley (actress); Santa Monica, Calif., Apr. 23, 1928.
- TEMPLETON**, Alec (pianist); Cardiff, Wales, July 4, 1910.
- TEYTE**, Maggie (soprano); Wolverhampton, Eng., Apr. 17, 1891.
- THEBOM**, Blanche (mezzo-soprano); Monessen, Pa., Sept. 19, 1919.
- THOMAS**, Danny (comedian); Deerfield, Mich., Jan. 6, 1914.
- THOMAS**, Frank (baseball player); Pittsburg, Pa., June 11, 1921.
- THOMAS**, Lowell (lecturer & author); Woodington, Ohio, Apr. 6, 1892.
- THOMAS**, Norman (Socialist leader); Marion, Ohio, Nov. 20, 1884.
- THOMPSON**, Randall (composer); New York City, Apr. 21, 1899.
- THOMSON**, Virgil (composer); Kansas City, Mo., Nov. 25, 1896.
- THOREZ**, Maurice (French Communist leader); Noyelles-Gaudault, Pas-de-Calais, Fr., Apr. 28, 1900.
- THORNDIKE**, Dame Sybil (actress); Gainsborough, Lincs., Eng., Oct. 24, 1882.
- THURBER**, James (humorist); Columbus, Ohio, Dec. 8, 1894.
- TIERNEY**, Gene (actress); Brooklyn, N. Y., Nov. 20, 1920.

- TITO (Josip Brozovich or Broz) (President, Yugoslavia); Croatia, May 25, 1892.
- TOGLIATTI, Palmiro (Italian Communist leader); Genoa, It., Mar. 26, 1893.
- TONE, Franchot (actor); Niagara Falls, N. Y., Feb. 27, 1905.
- TOUREL, Jennie (mezzo-soprano); Montreal, Can., June 22, 1910.
- TOYNBEE, Arnold J. (historian); London, Eng., Apr. 14, 1889.
- TRABERT, Tony (tennis player); Cincinnati, Ohio, Aug. 16, 1930.
- TRACY, Spencer (actor); Milwaukee, Wis., Apr. 5, 1900.
- TRAUBEL, Helen (soprano); St. Louis, Mo., June 18, 1903.
- TRAUTMAN, George M. (baseball executive); Bucyrus, Ohio, Jan. 11, 1890.
- TREVOR, Claire (actress); New York City, Mar. 8, 1909.
- TRUCKS, Virgil (baseball player); Birmingham, Ala., Apr. 26, 1919.
- TRUEX, Ernest (actor); Kansas City, Mo., Sept. 19, 1890.
- TRUJILLO Y MOLINA, Rafael (Dominican Republic statesman); San Cristóbal, Oct. 24, 1891.
- TRUMAN, Harry S. (U. S. statesman); Lamar, Mo., May 8, 1884.
- TRUMAN, Margaret (soprano); Independence, Mo., Feb. 17, 1924.
- TUCKER, Richard (tenor); New York City, Aug. 28, 1914.
- TUCKER, Sophie (Sophie Abuza) (entertainer); Russia, 1884.
- TUDOR, Anthony (choreographer); London, Eng., Apr. 4, 1909.
- TUNNEY, Gene (James J.) (boxer); New York City, May 25, 1898.
- TURLEY, Bob (baseball player); Troy, Ill., Sept. 19, 1930.
- TURNER, Lana (Julia Jean Turner) (actress); Wallace, Idaho, Feb. 8, 1920.
- TURNESA, Willie (golfer); Elmsford, N. Y., Jan. 29, 1914.
- TWINING, Gen. Nathan F. (Chmn., Joint Chiefs of Staff, U. S.); Monroe, Wis., Oct. 11, 1897.
- UNTERMEYER, Louis (poet & anthologist); New York City, Oct. 1, 1885.
- UREY, Harold C. (chemist); Walkerton, Ind., Apr. 29, 1893.
- USTINOV, Peter (dramatist & actor); London, Eng., 1921.
- VALLEE, Rudy (Hubert) (actor & band leader); Island Pond, Vermont, July 28, 1901.
- VANDERBILT, Alfred G. (horse racing executive); London, Eng., Sept. 22, 1912.
- VAN DOREN, Mark (poet & critic); Hope, Ill., June 13, 1894.
- VERA-ELLEN (Vera-Ellen Rohe) (actress); Cincinnati, Ohio, Feb. 16.
- VERDON, Gwen (actress); Culver City, Calif.
- VIDOR, King (movie director & producer); Galveston, Tex., Feb. 8, 1895.
- VILLA-LOBOS, Heitor (composer); Rio de Janeiro, Braz., Mar. 5, 1884.
- VIRDON, Bill (baseball player); Hazel Park, Mich., June 9, 1931.
- VLAMINCK, Maurice de (painter); Paris, Fr., Apr. 4, 1876.
- VON BRAUN, Wernher (rocket engineer); Wirsitz, Ger., Mar. 23, 1912.
- WAGNER, Robert (actor); Detroit, Mich., Feb. 10, 1930.
- WAGNER, Robert F. (Mayor, NYC); New York City, Apr. 20, 1910.
- WALCOTT, Jersey Joe (Arnold Cream) (boxer); Merchantville, N. J., Jan. 31, 1914.
- WALKER, Mickey (boxer); Elizabeth, N. J., July 13, 1901.
- WALKER, Nancy (Ann Myrtle Swoyer) (actress); Philadelphia, Pa.
- WALLACE, DeWitt (publisher); St. Paul, Minn., Nov. 12, 1889.
- WALLACE, Henry A. (U. S. statesman); Adair Co., Iowa, Oct. 7, 1888.
- WALLACE, Mike (TV personality) (Myron Leon Wallace); Brookline, Mass., May 9, 1918.
- WALTARI, Mika (novelist); Helsinki, Fin., Sept. 19, 1908.
- WALTER, Bruno (Bruno Walter Schlesinger) (orchestra conductor); Berlin, Ger., Sept. 17, 1876.
- WARD, Barbara (writer & economist); York, Eng., May 23, 1914.
- WARING, Fred (band leader); Tyrone, Pa., June 9, 1900.
- WARNER, Sylvia Townsend (novelist & poet); Harrow-on-the-Hill, Eng., 1893.
- WARREN, Earl (U. S. jurist); Los Angeles, Calif., Mar. 19, 1891.
- WARREN, Leonard (baritone); New York City, Apr. 21, 1911.
- WARREN, Robert Penn (novelist); Guthrie, Ky., Apr. 24, 1905.
- WATERS, Ethel (actress & singer); Chester, Pa., Oct. 31, 1900.
- WAUGH, Alec (Alexander Raban Waugh) (novelist); London, Eng., July 8, 1898.
- WAUGH, Evelyn (novelist); London, 1903.
- WAYNE, David (actor); Traverse City, Mich., Jan. 30, 1914.
- WAYNE, John (Marion Michael Morrison) (actor); Winterset, Iowa, May 26, 1907.
- WEBB, Clifton (actor); Indiana, 1891.
- WEBB, Jack (actor); Santa Monica, Calif., Apr. 2, 1920.
- WEBSTER, Margaret (actress & director); New York City, Mar. 15, 1905.
- WEDE, Robert (baritone) (Robert Wiedefeld); Baltimore, Md., Feb. 22, 1903.
- WEEKS, Sinclair (Secy. of Commerce, U. S.); West Newton, Mass., June 15, 1893.
- WELCH, Joseph N. (lawyer); Pringhar, Iowa, Oct. 22, 1890.
- WELK, Lawrence (band leader); Strasburg, N. Dak., Mar. 11, 1903.
- WELLES, Orson (actor & director); Kenosha, Wis., May 6, 1915.
- WELTY, Eudora (novelist); Jackson, Miss., Apr. 13, 1909.
- WESCOTT, Glenway (novelist); Kewas-kum, Wis., Apr. 11, 1901.
- WEST, Mae (actress); Brooklyn, N. Y., Aug. 17, 1892.
- WEST, Rebecca (Cicily Fairfield) (novelist); Edinburgh, Scot., Dec. 25, 1892.

- WHITE, E. B.** (Elwyn Brooks) (writer); Mt. Vernon, N. Y., July 11, 1899.
- WHITEMAN, Paul** (band leader); Denver, Colo., 1891.
- WHITNEY, C. V.** (horse racing executive); New York City, Feb. 20, 1899.
- WHITNEY, John Hay** (U. S. Ambassador); Ellsworth, Me., Aug. 17, 1904.
- WHITTAKER, Charles E.** (U. S. jurist); Troy, Mo., Feb. 22, 1901.
- WHORF, Richard** (actor); Winthrop, Mass.
- WIDENER, George D.** (horse racing executive); Philadelphia, Pa., Mar. 11, 1889.
- WIDMARK, Richard** (actor); Sunrise, Minn., Dec. 26, 1914.
- WILDE, Cornel** (actor); New York City, Oct. 13, 1915.
- WILDER, Billy** (movie director); Vienna, Aus., June 22, 1906.
- WILDER, Thornton** (novelist); Madison, Wis., Apr. 17, 1897.
- WILDING, Michael** (actor); Westcliff, Essex, Eng., July 23, 1912.
- WILKINS, Sir Hubert** (explorer); South Australia, Oct. 31, 1888.
- WILLARD, Jess** (boxer); Pottawatomie Co., Kans., Dec. 29, 1883.
- WILLIAMS, Emlyn** (dramatist); Mostyn, Wales, Nov. 26, 1905.
- WILLIAMS, Esther** (swimmer & actress); Inglewood, Calif., Aug. 8, 1923.
- WILLIAMS, Gluyas** (cartoonist); San Francisco, Calif., July 23, 1888.
- WILLIAMS, Ted** (baseball player); San Diego, Calif., Oct. 30, 1918.
- WILLIAMS, Tennessee** (Thomas L. Williams) (dramatist); Columbus, Miss., Mar. 26, 1914.
- WILLIAMS, William Carlos** (poet); Rutherford, N. J., Sept. 17, 1883.
- WILLSON, Meredith** (composer & actor); Mason City, Iowa, May 18, 1902.
- WILSON, Charles Edward** (industrialist); New York City, Nov. 18, 1886.
- WILSON, Charles Erwin** (Former Secretary of Defense, U. S.); Minerva, Ohio, July 18, 1890.
- WILSON, Edmund** (literary critic); Red Bank, N. J., May 8, 1895.
- WILSON, Marie** (actress); Anaheim, Calif., Aug. 19, 1916.
- WILSON, Sloan** (novelist); Norwalk, Conn., May 8, 1920.
- WINCHELL, Paul** (ventriloquist); New York City, Dec. 21, 1923.
- WINCHELL, Walter** (columnist); New York City, Apr. 7, 1897.
- WINDSOR, Duchess of** (Bessie Wallis Warfield); Blue Ridge Summit, Pa., June 19, 1896.
- WINDSOR, Duke of** (formerly King Edward VIII, Gr. Brit.); Richmond Park, Eng., June 23, 1894.
- WINNINGER, Charles** (actor); Athens, Wis., May 26, 1884.
- WINTERS, Jonathan** (comedian); Dayton, Ohio, Nov. 11, 1925.
- WINTERS, Shelley** (Shirley Schrift) (actress); St. Louis, Ill., Aug. 18, 1922.
- WOOD, Peggy** (actress); Brooklyn, N. Y., Feb. 9, 1892.
- WOODWARD, Joanne** (actress); Thomasville, Ga., Feb. 27, 1931.
- WOOLLEY, Monte** (Edgar) (actor); New York City, Aug. 17, 1888.
- WORTMAN, Denys** (cartoonist); Saugerties, N. Y., May 1, 1887.
- WOUK, Herman** (novelist); New York City, May 27, 1915.
- WRIGHT, Frank Lloyd** (architect); Richland Center, Wis., June 8, 1869.
- WRIGHT, Richard** (novelist); nr. Natchez, Miss., Sept. 4, 1908.
- WRIGHT, Teresa** (actress); New York City, Oct. 27, 1918.
- WYATT, Jane** (actress); Campgaw, N. J., Aug. 12, 1912.
- WYETH, Andrew** (painter); Chadds Ford, Pa., July 12, 1917.
- WYLER, William** (movie director); Mulhouse, Fr., July 1, 1902.
- WYLIE, Philip** (novelist); Beverly, Mass., May 12, 1902.
- WYMAN, Jane** (Sarah Fults) (actress); St. Joseph, Mo., Jan. 4, 1914.
- WYNN, Ed** (Edwin Leopold) (comedian); Philadelphia, Pa., Nov. 9, 1886.
- WYNN, Keenan** (actor); New York City, July 27, 1916.
- YERBY, Frank** (novelist); Augusta, Ga., Sept. 5, 1916.
- YOUNG, Alan** (Angus Young) (actor); No. Shields, Northum., Eng., Nov. 19, 1919.
- YOUNG, Loretta** (Gretchen) (actress); Salt Lake City, Utah, Jan. 8, 1913.
- YOUNG, Robert** (actor); Chicago, Ill., Feb. 22, 1907.
- ZANUCK, Darryl F.** (movie director); Wahoo, Nebr., Sept. 5, 1902.
- ZHUKOV, Marshal Georgi** (Red Army Chief); Asadako-Zovodski, Rus., 1896.
- ZIMBALIST, Efrem** (violinist); Rostov-on-Don, Rus., Apr. 9, 1889.
- ZORACH, William** (sculptor); Eurburg, Lith., Feb. 28, 1887.
- ZUKOR, Adolph** (movie producer); Ricse, Hung., Jan. 7, 1873.
- ZWEIG, Arnold** (novelist); Grosz-Glogau, Silesia, Nov. 10, 1887.

American Academy of Arts and Letters

(633 W. 155th St., New York 32, N. Y.)

The American Academy of Arts and Letters was created as a section of the National Institute of Arts and Letters in 1904, and was incorporated by an Act of Congress signed by the President on Apr. 17, 1916. Its membership is limited to 50 persons chosen from

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tinction; and, together with its affiliate, the American Academy of Arts and Letters, it elects as honorary members many distinguished artists from other countries.

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Paul Manship
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Bruce Moore
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Hobart Nichols
Georgia O'Keeffe
Abram Poole
Henry Varnum Poor
Brenda Putnam
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Edward W. Redfield
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Eero Saarinen
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Virgil Thomson
Ernst Toch
Edgard Varèse

★ CELEBRATED PERSONS OF THE PAST ★

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For the Presidents of the United States, consult the entry Presidents in the index. For the Rulers of England, France, Germany and Russia, consult the entry Rulers. In many instances below, the original name or form of the name of the individual is shown in parentheses.

ABELARD, Peter (Pierre Abélard) (philosopher); b. near Nantes, Fr. (1079-1142).
ADAMS, Charles Francis (diplomat); b. Boston, Mass. (1807-1886).
ADAMS, Henry Brooks (historian); b. Boston, Mass. (1838-1918).
ADAMS, James Truslow (historian); b. Brooklyn, N. Y. (1878-1949).
ADAMS, Maude (Maude Kiskadden) (actress); b. Salt Lake City, Utah (1872-1953).
ADAMS, Samuel (American Revolutionary patriot); b. Boston, Mass. (1722-1803).
ADDAMS, Jane (social worker); b. Cedarville, Ill. (1860-1935).
ADE, George (humorist); b. Kentland, Ind. (1866-1944).

ADLER, Alfred (psychoanalyst); b. Vienna, Aus. (1870-1937).
AESCHYLUS (dramatist); b. Eleusis, Attica (525-456 B.C.).
AESOP (fabulist); birthplace unknown (lived c. 600 B.C.).
ALCOTT, Louisa May (novelist); b. Germantown, Pa. (1832-1888).
ALDEN, John (American Pilgrim); b. England (1599?-1687).
ALEXANDER the Great (monarch & conqueror); b. Pella, Macedonia (356-323 B.C.).
ALGER, Horatio (author); b. Revere, Mass. (1834-1899).
ALLEN, Ethan (American Revolutionary soldier); b. Litchfield, Conn. (1738-1789).

- ALLEN, Fred** (John Florence Sullivan) (comedian); b. Cambridge, Mass. (1894-1956).
- ANDERSEN, Hans Christian** (fairy-tale writer); b. Odense, Den. (1805-1875).
- ANTHONY, Mark** (Marcus Antonius) (statesman); b. Rome (83?-30 B.C.).
- ANTHONY, Susan Brownell** (woman suffragist); b. Adams, Mass. (1820-1906).
- AQUINAS, St. Thomas** (philosopher); b. near Aquino, It. (1225?-1274).
- ARCHIMEDES** (physicist & mathematician); b. Syracuse, Sicily (287?-212 B.C.).
- ARISTOPHANES** (dramatist); b. Athens (448?-380 B.C.).
- ARISTOTLE** (philosopher); b. Stagira (384-322 B.C.).
- ARNOLD, Benedict** (American traitor); b. Norwich, Conn. (1741-1801).
- ARNOLD, Matthew** (poet & critic); b. Laleham, Mid., Eng. (1822-1888).
- ASCH, Sholem** (novelist); b. Kutno, Pol. (1880-1957).
- ASTOR, John Jacob** (financier); b. Waldorf, Ger. (1763-1848).
- ATTILA** (King of Huns, called "Scourge of God") (406?-453).
- AUDUBON, John James** (naturalist & artist); b. Haiti (1785-1851).
- AUER, Leopold** (violinist & teacher); b. Veszprém, Hung. (1845-1930).
- AUGUSTINE, Saint** (Aurelius Augustinus) (philosopher); b. Numidia (354-430).
- AUGUSTUS** (Gaius Octavius) (Roman emperor); b. Rome (63 B.C.-A.D. 14).
- AUSTEN, Jane** (novelist); b. Steventon, Hamps., Eng. (1775-1817).
- BACH, Johann Sebastian** (composer); b. Eisenach, Ger. (1685-1750).
- BACON, Francis** (philosopher & essayist); b. London, England (1561-1626).
- BACON, Roger** (philosopher & scientist); b. Ilchester, Som., Eng. (1214?-1294).
- BAEDEKER, Karl** (travel-guidebook publisher); b. Essen, Ger. (1801-1859).
- BALBOA, Vasco Núñez de** (explorer); b. Jerez de los Caballeros, Sp. (1475-1517).
- BALZAC, Honoré de** (novelist); b. Tours, Fr. (1799-1850).
- BANTING, Sir Frederick Grant** (research physician); b. Canada (1891-1941).
- BARA, Theda** (Theodosia Goodman) (actress); b. Cincinnati, Ohio (1890-1955).
- BARKLEY, Alben William** (U. S. statesman); b. Graves Co., Ky. (1877-1956).
- BARNUM, Phineas Taylor** (showman); b. Bethel, Conn. (1810-1891).
- BARRIE, Sir James Matthew** (novelist & dramatist); b. Kirriemuir, Forfarshire, Scot. (1860-1937).
- BARRY, Philip** (dramatist); b. Rochester, N. Y. (1896-1949).
- BARRYMORE, John** (actor); b. Philadelphia, Pa. (1882-1942).
- BARRYMORE, Lionel** (actor); b. Philadelphia, Pa. (1878-1954).
- BARTÓK, Béla** (composer); b. Nagyszénmiklos, Transylvania, Hung. (1881-1945).
- BARTON, Clara** (Clarissa Harlowe Barton) (social worker); b. Oxford, Mass. (1821-1912).
- BAUDELAIRE, Charles Pierre** (poet); b. Paris, Fr. (1821-1867).
- BECKET, Thomas à** (Archbishop of Canterbury); b. London, Eng. (1118?-1170).
- BEDE, Saint** (called "The Venerable Bede") (scholar); b. Monkwearmouth, Eng. (673-735).
- BEECHER, Henry Ward** (clergyman); b. Litchfield, Conn. (1813-1887).
- BEERBOHM, Sir Max** (author); b. London, Eng. (1872-1956).
- BEETHOVEN, Ludwig van** (composer); b. Bonn, Ger. (1770-1827).
- BELASCO, David** (dramatist & producer); b. San Francisco, Calif. (1854-1931).
- BELL, Alexander Graham** (inventor); b. Edinburgh, Scot. (1847-1922).
- BELLAMY, Edward** (author); b. Chicopee Falls, Mass. (1850-1898).
- BELLOWES, George Wesley** (painter & lithographer); b. Columbus, Ohio (1882-1925).
- BENCHLEY, Robert Charles** (humorist); b. Worcester, Mass. (1889-1945).
- BENEŠ, Eduard** (Czech statesman); b. Kožlany, Bohemia (1884-1948).
- BENÉT, Stephen Vincent** (poet & story writer); b. Bethlehem, Pa. (1898-1943).
- BENÉT, William Rose** (poet & novelist); b. Ft. Hamilton, N. Y. (1886-1950).
- BENJAMIN, Judah Philip** (Confederate statesman); b. St. Thomas, BWI (1811-1884).
- BENNETT, Enoch Arnold** (novelist & dramatist); b. Hanley, Staffs., Eng. (1867-1931).
- BENNETT, James Gordon** (editor); b. Keith, Banffshire, Scot. (1795-1872).
- BERLIOZ, Louis Hector** (composer); b. La Côte-St.-André, Fr. (1803-1869).
- BERNHARDT, Sarah** (Rosine Bernard) (actress); b. Paris, Fr. (1844-1923).
- BEVIN, Ernest** (British statesman); b. Somersetshire, Eng. (1881-1951).
- BIERCE, Ambrose Gwinnett** (journalist); b. Meigs Co., Ohio (1842-1914).
- BISMARCK-SCHÖNHAUSEN, Prince Otto** (Edward Leopold von) (German statesman); b. Schönhausen, Prus. (1815-1898).
- BIZET, Georges** (Alexandre César Léopold Bizet) (composer); b. Paris, Fr. (1838-1875).
- BLACKSTONE, Sir William** (Jurist); b. London, Eng. (1723-1780).
- BLAKE, William** (poet & artist); b. London, Eng. (1757-1827).
- BLUM, Léon** (French statesman); b. Paris, Fr. (1872-1950).
- BOCCACCIO, Giovanni** (author); b. Paris, Fr. (1313-1375).
- BOGART, Humphrey** (actor); b. New York City (1900-1957).
- BOLÍVAR, Simón** (South American liberator); b. Caracas, Venez. (1783-1830).
- BOND, Carrie** (nee Jacobs) (composer of songs); b. Janesville, Wis. (1862-1946).
- BOONE, Daniel** (frontiersman); b. near Reading, Pa. (1734-1820).
- BOOTH, Edwin Thomas** (actor); b. Bel Air, Md. (1833-1893).
- BOOTH, Evangeline Cory** (religious leader); b. London, Eng. (1865-1950).

- BOOTH, John Wilkes** (actor; assassin of Lincoln); b. Hartford County, Md. (1838-1865).
- BOOTH, William** (called General Booth) (religious leader); b. Nottingham, Eng. (1829-1912).
- BORGIA, Cesare** (nobleman & soldier); b. Rome (1475?-1507).
- BORGIA, Lucrezia** (Duchess of Ferrara); b. Rome (1480-1519).
- BOSWELL, James** (diarist & biographer); b. Edinburgh, Scot. (1740-1795).
- BOTTICELLI, Sandro** (Alessandro di Mariano dei Filipepi) (painter); b. Florence (1444?-1510).
- BOWIE, James** (soldier); b. Burke Co., Ga. (1799-1836).
- BRAHMS, Johannes** (composer); b. Hamburg, Ger. (1833-1897).
- BRAILLE, Louis** (teacher of blind); b. Coupvray, Fr. (1809-1852).
- BRANDEIS, Louis Dembitz** (jurist); b. Louisville, Ky. (1856-1941).
- BRICE, Fanny** (Fannie Borach) (comedianne); b. New York City (1892-1951).
- BRISBANE, Arthur** (journalist) b. Buffalo, N. Y. (1864-1936).
- BROMFIELD, Louis** (novelist); b. Mansfield, Ohio (1896-1956).
- BRONTË, Charlotte** (novelist); b. Thornton, Yorks., Eng. (1816-1855).
- BRONTË, Emily Jane** (novelist); b. Thornton, Yorks., Eng. (1818-1848).
- BROOKE, Rupert** (poet); b. Rugby, War., Eng. (1887-1915).
- BROWN, Matthew Heywood Campbell** (journalist); b. Brooklyn, N. Y. (1888-1939).
- BROWN, John** (abolitionist); b. Torrington, Conn. (1800-1859).
- BROWNING, Elizabeth Barrett** (poet); b. Coxhoe Hall, Durham, England (1806-1861).
- BROWNING, Robert** (poet); b. London, Eng. (1812-1889).
- BRUEGHEL, Pieter** (painter); b. near Breda, Flanders (1520-1569).
- BRUTUS, Marcus Junius** (Roman politician) (85?-42 B.C.).
- BRYAN, William Jennings** (orator & politician); b. Salem, Ill. (1860-1925).
- BRYANT, William Cullen** (poet & editor); b. Cummington, Mass. (1794-1878).
- BUDDHA**. See Gautama Buddha.
- BUFFALO BILL** (William Frederick Cody) (scout); b. Scott Co., Iowa (1846-1917).
- BUNYAN, John** (preacher & author); b. Elstow, Eng. (1628-1688).
- BURBANK, Luther** (horticulturist); b. Lancaster, Mass. (1849-1926).
- BURKE, Edmund** (statesman); b. Dublin, Ire. (1729-1797).
- BURNS, Robert** (poet); b. Alloway, Scot. (1759-1796).
- BURR, Aaron** (U. S. political leader); b. New York, N. J. (1756-1836).
- BUTLER, Nicholas Murray** (educator); b. Elizabeth, N. J. (1862-1947).
- BUTLER, Samuel** (author); b. Langar, Notts., Eng. (1835-1902).
- BYRD, Richard E.** (explorer); b. Winchester, Va. (1888-1957).
- BYRON, George Gordon** (6th Baron Byron) (poet); b. London, Eng. (1788-1824).
- CABELL, James Branch** (novelist); b. Richmond, Va. (1879-1958).
- CABOT, John** (Giovanni Caboto) (navigator); b. Genoa (1450-1498).
- CABOT, Sebastian** (navigator); b. Venice (1476?-1557).
- CAESAR, Gaius Julius** (Roman statesman); b. Rome (100?-44 B.C.).
- CALHERN, Louis** (Carl Henry Vogt) (actor); b. New York City (1895-1956).
- CALHOUN, John Caldwell** (statesman); b. near Calhoun Mills, S. C. (1782-1850).
- CALVIN, John** (Jean Chauvin) (religious reformer); b. Noyon, Picardy (1509-1564).
- CARDOZO, Benjamin Nathan** (jurist); b. New York City (1870-1938).
- CARLYLE, Thomas** (essayist & historian); b. Ecclefechan, Dumfriesshire, Scot. (1795-1881).
- CARNEGIE, Andrew** (industrialist); b. Dunfermline, Scot. (1835-1919).
- CARROLL, Lewis** (Charles Lutwidge Dodgson) (author & mathematician); b. Daresbury, Ches., Eng. (1832-1898).
- CARSON, Kit** (Christopher) (scout); b. Madison Co., Ky. (1809-1868).
- CARUSO, Enrico** (Errico) (tenor); b. Naples, It. (1873-1921).
- CARVER, George Washington** (botanist); b. Missouri (1864-1943).
- CARY, Joyce** (novelist); b. Londonderry, Ire. (1888-1957).
- CASANOVA DE SEINGALT, Giovanni Jacopo** (adventurer); b. Venice (1725-1798).
- CATHER, Willa Sibert** (novelist); b. Winchester, Va. (1876-1947).
- CATO, Marcus Porcius** (called Cato the Elder) (statesman); b. Tusculum (234-149 B.C.).
- CATT, Carrie Chapman** (nee Lane) (woman suffragist); b. Ripon, Wis. (1859-1947).
- CELLINI, Benvenuto** (goldsmith & sculptor); b. Florence (1500-1571).
- CERVANTES SAAVEDRA, Miguel de** (novelist); b. Alcalá de Henares, Sp. (1547-1616).
- CÉZANNE, Paul** (painter); b. Aix-en-Provence, Fr. (1839-1906).
- CHALIAPIN, Feodor Ivanovitch** (basso); b. Kazan, Rus. (1873-1938).
- CHAMPLAIN, Samuel de** (explorer); b. nr. Rochefort, Fr. (1567?-1635).
- CHANEY, Lon** (actor); b. Colorado Springs, Colo. (1883-1930).
- CHARLEMAGNE** (Holy Roman Emperor); birthplace unknown (742-814).
- CHAUCER, Geoffrey** (poet); b. London, Eng. (1340?-1400).
- CHEKHOV, Anton Pavlovich** (dramatist & story writer); b. Taganrog, Rus. (1860-1904).
- CHESTERTON, Gilbert Keith** (author); b. Kensington, Eng. (1874-1936).
- CHIPPENDALE, Thomas** (cabinetmaker); b. Otley, Eng. (1718?-1779).
- CHOPIN, Frédéric François** (composer); b. nr. Warsaw, Pol. (1810-1849).
- CICERO, Marcus Tullius** (orator & statesman); b. Arpinum, It. 106-43 B.C.).
- CLARK, William** (explorer); b. Caroline Co., Va. (1770-1838).
- CLAY, Henry** (statesman); b. Hanover Co., Va. (1777-1852).

- CLEMENCEAU, Georges (statesman); b. Moulilleron-en-Pareds, Vendée, France (1841-1929).
- CLEMENS, S. L. *See* Twain
- CLEOPATRA (Queen of Egypt); b. Alexandria, Egy. (69-30 B.C.).
- COBB, Irvin Shrewsbury (humorist); b. Paducah, Ky. (1876-1944).
- CODY, W. F. *See* Buffalo Bill.
- COHAN, George Michael (actor & dramatist); b. Providence, R. I. (1878-1942).
- COHEN, Morris Raphael (philosopher & educator); b. Minsk, Rus. (1880-1947).
- COLERIDGE, Samuel Taylor (poet); b. Ottery St. Mary, Dev., Eng. (1772-1834).
- COLLETTE (Sidonie-Gabriele Colette) (novelist); b. St.-Sauveur, Fr. (c.1873-1954).
- COLMAN, Ronald (actor); b. Richmond, Eng. (1891-1958).
- COLUMBUS, Christopher (Cristoforo Colombo) (discoverer of America); b. Genoa (1451-1506).
- COMPTON, Karl Taylor (physicist); b. Wooster, Ohio (1887-1954).
- CONFUCIUS (K'ung Fu-tz'ü) (philosopher); b. Shantung prov., China (c. 551-479 B.C.).
- CONGREVE, William (dramatist); b. nr. Leeds, Eng. (1670-1729).
- CONRAD, Joseph (Teodor Józef Konrad Korzeniowski) (novelist); b. Berdichev, Ukraine (1857-1924).
- COOPER, James Fenimore (novelist); b. Burlington, N. J. (1789-1851).
- COOPER, Peter (industrialist & philanthropist); b. New York City (1791-1883).
- COPERNICUS, Nicolaus (Mikolaj Kopernik) (astronomer); b. Thorn, Pol. (1473-1543).
- CORBETT, James J. (boxer); b. San Francisco, Calif. (1866-1933).
- CORNEILLE, Pierre (dramatist); b. Rouen, Fr. (1606-1684).
- COROT, Jean Baptiste Camille (painter); b. Paris, Fr. (1796-1875).
- CORREGGIO, Antonio Allegri da (painter); b. Correggio, It. (1494-1534).
- CORTÉS (or CORTEZ), Hernando (explorer); b. Medellin, Sp. (1485-1547).
- COWL, Jane (Jane Cowles) (actress); b. Boston, Mass. (1884-1950).
- COWPER, William (poet); b. Great Berkhamsstead, Herts., Eng. (1731-1800).
- COX, James Middleton (publisher); b. Jacksonburg, Ohio (1870-1957).
- CRANE, Stephen (novelist & poet); b. Newark, N. J. (1871-1900).
- CROCE, Benedetto (philosopher); b. Pescasseroli, Aquila, It. (1866-1952).
- CROCKETT, Davy (David) (frontiersman); b. Greene Co., Tenn. (1786-1836).
- CURIE, Marie (Marja Skłodowska) (physical chemist); b. Warsaw, Pol. (1867-1934).
- CURIE, Pierre (chemist); b. Paris, Fr. (1859-1906).
- CUSTER, George Armstrong (army officer); b. New Rumley, Ohio (1839-1876).
- DAMROSCH, Walter Johannes (orchestra conductor); b. Breslau, Ger. (1862-1950).
- DANA, Charles Anderson (editor); b. Hinsdale, N. H. (1819-1897).
- D'ANNUNZIO, Gabriele (soldier & author); b. Francaville al Mare, Pescara, It. (1863-1938).
- DANTE (or DURANTE) ALIGHIERI (poet); b. Florence (1265-1321).
- DANTON, Georges Jacques (French Revolutionary leader); b. Arcis-sur-Aube, Fr. (1759-1794).
- DARROW, Clarence Seward (lawyer); b. Kinsman, Ohio (1857-1938).
- DARWIN, Charles Robert (naturalist); b. Shrewsbury, Shrops., Eng. (1809-1882).
- DAUMIER, Honoré (caricaturist); b. Mar-seille, Fr. (1808-1879).
- DAVID (King of Israel & Judah) (died c.973 B.C.).
- DAVIDSON, Jo (sculptor); b. New York City (1883-1952).
- DAVIS, Elmer (radio commentator); b. Aurora, Ind. (1890-1958).
- DAVIS, Jefferson (Pres. of Confederacy); b. Christian (now Todd) Co., Ky. (1808-1889).
- DEAN, James (actor); b. Marion, Ind. (1931-1955).
- DEBS, Eugene Victor (Socialist leader); b. Terre Haute, Ind. (1855-1926).
- DEBUSSY, Claude Achille (composer); b. St. Germain-en-Laye, Fr. (1862-1918).
- DEFOE, Daniel (novelist); b. London, Eng. (1659?-1731).
- DEGAS, Hilaire Germain Edgar (painter); b. Paris, Fr. (1834-1917).
- DEMOSTHENES (orator); b. Athens (385?-322 B.C.).
- DESCARTES, René (philosopher & mathematician); b. La Haye, Fr. (1596-1650).
- DE SOTO, Hernando (explorer); b. Barcarota, Sp. (1500?-1542).
- DE VOTO, Bernard (author); b. Ogden, Utah (1897-1955).
- DEWEY, George (naval officer); b. Mont-peller, Vt. (1837-1917).
- DEWEY, John (philosopher & educator); b. Burlington, Vt. (1859-1952).
- DICKENS, Charles John Huffam (novelist); b. Portsea, Eng. (1812-1870).
- DICKINSON, Emily Elizabeth (poet); b. Amherst, Mass. (1830-1886).
- DIogenES (philosopher); b. Sinope, Asia Minor (412?-323 B.C.).
- DIOR, Christian (fashion designer); b. Granville, Normandy, Fr. (1905-1957).
- DISRAELI, Benjamin (statesman); b. London, Eng. (1804-1881).
- DODGSON, C. L. *See* Carroll, Lewis.
- DONAT, Robert (actor); b. Withington, Eng. (1905-1958).
- DONNE, John (poet); b. London, Eng. (1573-1631).
- DORSEY, Jimmy (band leader); b. Shenandoah, Pa. (1904-1957).
- DORSEY, Tommy (band leader); b. Mahanoy Plane, Pa. (1905-1956).
- DOSTOEVSKI, Fyodor Mikhailovich (novelist); b. Moscow, Rus. (1821-1881).
- DOUGLAS, Stephen Arnold (politician); b. Brandon, Vt. (1813-1861).
- DOYLE, Sir Arthur Conan (novelist & spiritualist); b. Edinburgh, Scot. (1859-1930).
- DRAKE, Sir Francis (navigator); b. Tavistock, Devons., Eng. (1545?-1596).

- DRAPER**, Ruth (actress); b. New York City 1884-1956).
- DREISER**, Theodore (novelist); b. Terre Haute, Ind. (1871-1945).
- DRESSLER**, Marie (Lella Koerber) (actress); b. Cobourg, Ont., Can. (1869-1934).
- DREYFUS**, Alfred (French army officer); b. Alsace (1859-1935).
- DRYDEN**, John (poet); b. Northamptonshire, Eng. (1631-1700).
- DUMAS**, Alexandre (called Dumas père) (novelist); b. Villers-Cotterets, Fr. (1802-1870).
- DUMAS**, Alexandre (called Dumas fils) (novelist); b. Paris, Fr. (1824-1895).
- DU MAURIER**, George Louis Palmella Busson (novelist); b. Paris, Fr. (1834-1896).
- DUNCAN**, Isadora (dancer); b. San Francisco, Calif. (1878-1927).
- DUSE**, Eleonora (actress); b. Chioggia, It. (1859-1924).
- DVOŘÁK**, Antonín (composer); b. Mühlfeld, Bohemia (1841-1904).
- EARHART**, Amelia (aviator); b. Atchison, Kans. (1898-1937).
- EDDY**, Mary Morse (nee Baker) (religious leader); b. Bow, N. H. (1821-1910).
- EDISON**, Thomas Alva (inventor); b. Milan, Ohio (1847-1931).
- EDMAN**, Irwin (philosopher); b. New York City (1896-1954).
- EHRLICH**, Paul (bacteriologist); b. Silesia prov., Prus. (1854-1915).
- EINSTEIN**, Albert (physicist); b. Ulm, Ger. (1879-1955).
- ELGAR**, Sir Edward (composer); b. Worcester, Eng. (1857-1934).
- ELIOT**, George (Mary Ann Evans) (novelist); b. Warwickshire, Eng. (1819-1880).
- EMERSON**, Ralph Waldo (philosopher & poet); b. Boston, Mass. (1803-1882).
- ENESCO**, Georges (composer); b. Dorohoi, Rum. (1881-1955).
- ENGELS**, Friedrich (Socialist writer); b. Barmen, Ger. (1820-1895).
- EPICURUS** (philosopher); b. Samos (341-270 B.C.).
- ERASMUS**, Desiderius (Gerhard Gerhards) (scholar); b. Rotterdam (1466?-1536).
- ERICSON**, Leif (navigator) (c.10th cent. A.D.).
- EUCLID** (mathematician) (c.300 B.C.).
- EURIPIDES** (dramatist); b. Salamis (c. 484-407 B.C.).
- FAIRBANKS**, Douglas (actor); b. Denver, Colo. (1883-1939).
- FALLA**, Manuel de (composer); b. Cadiz, Sp. (1876-1946).
- FARADAY**, Michael (physicist); b. Newington, Sur., Eng. (1791-1867).
- FERMI**, Enrico (physicist); b. Rome, It. (1901-1954).
- FIELD**, Eugene (poet); b. St. Louis, Mo. (1850-1895).
- FIELD**, Marshall, III (publisher & philanthropist); b. Chicago, Ill. (1893-1956).
- FIELDING**, Henry (novelist); b. nr. Glastonbury, Som., Eng. (1707-1754).
- FIELDS**, W. C. (Claude William Dukenfield) (actor); b. Philadelphia, Pennsylvania (1880-1946).
- FISKE**, Minnie Maddern (nee Davey) (actress); b. New Orleans, Louisiana (1865-1932).
- FITZGERALD**, Francis Scott Key (novelist); b. St. Paul, Minn. (1896-1940).
- FITZSIMMONS**, Robert Prometheus (boxer); b. Cornwall, Eng. (1862-1917).
- FLAUBERT**, Gustave (novelist); b. Rouen, Fr. (1821-1880).
- FLEMING**, Sir Alexander (bacteriologist); b. Lochfield, Scot. (1881-1955).
- FORD**, Henry (industrialist); b. Greenfield, Mich. (1863-1947).
- FOSTER**, Stephen Collins (composer); b. nr. Pittsburgh, Pa. (1826-1864).
- FRANCE**, Anatole (Jacques Anatole François Thibault) (author); b. Paris (1844-1924).
- FRANKLIN**, Benjamin (statesman & scientist); b. Boston, Mass. (1706-1790).
- FRAZER**, Sir James George (anthropologist); b. Glasgow, Scot. (1854-1941).
- FREUD**, Sigmund (psychoanalyst); b. Freiberg, Moravia (1856-1939).
- FULTON**, Robert (inventor); b. Lancaster Co., Pa. (1765-1815).
- GAINSBOROUGH**, Thomas (painter); b. Sudbury, Suff., Eng. (1727-1788).
- GALILEI**, Galileo (astronomer & physicist); b. Pisa, It. (1564-1642).
- GALSWORTHY**, John (novelist & dramatist); b. Coombe, Sur., Eng. (1867-1933).
- GANDHI**, Mohandas Karamchand (called Mahatma Gandhi) (Hindu leader); b. Porbandar, India (1869-1948).
- GARIBALDI**, Giuseppe (Italian nationalist leader); b. Nice, Fr. (1807-1882).
- GARRICK**, David (actor); b. Hereford, Heref., Eng. (1717-1779).
- GARRISON**, William Lloyd (abolitionist); b. Newburyport, Mass. (1805-1879).
- GAUGUIN**, Eugène Henri Paul (painter); b. Paris, Fr. (1848-1903).
- GAUTAMA BUDDHA** (Prince Siddhartha) (philosopher); b. Kapilavastu, India (563?-483 B.C.).
- GEDDES**, Norman Bel (stage designer); b. Adrian, Mich. (1893-1958).
- GEHRIG**, Lou (Henry Louis Gehrig) (baseball player); b. New York City (1903-1941).
- GENGHIS KHAN** (Temujin) (conqueror); b. nr. Lake Baikal in Asia (1162-1227).
- GEORGE**, Henry (economist); b. Philadelphia, Pa. (1839-1897).
- GERONIMO** (Goyathlay) (Apache chieftain); b. Arizona (1829-1909).
- GERSHWIN**, George (composer); b. Brooklyn, N. Y. (1898-1937).
- GIBBON**, Edward (historian); b. Putney, Eng. (1737-1794).
- GIBSON**, Charles Dana (illustrator); b. Roxbury, Mass. (1867-1944).
- GIDE**, André (author); b. Paris, Fr. (1869-1951).
- GILBERT**, Sir William Schwenck (dramatist & librettist); b. London, England (1836-1911).
- GIOTTO** di Bondone (painter); b. Vespignano, It. (1276?-1337).
- GLADSTONE**, William Ewart (statesman); b. Liverpool, Eng. (1809-1898).

- GLUCK**, Christoph Willibald (composer); b. Erasbach, Bavaria (1714-1787).
- GOEBBELS**, Joseph Paul (Nazi leader); b. Rheydt, Ger. (1897-1945).
- GOERING**, Hermann (Nazi leader); b. Rosenheim, Bavaria (1893-1946).
- GOETHALS**, George Washington (engineer); b. Brooklyn, N. Y. (1858-1923).
- GOETHE**, Johann Wolfgang von (poet); b. Frankfurt am Main, Ger. (1749-1832).
- GOGH**, Vincent van (painter); b. Groot-Zundert, Brabant, Hol. (1853-1890).
- GOGOL**, Nikolai Vasilievich (novelist); b. nr. Mirgorod, Poltava, Ukr. (1809-1852).
- GOLDSMITH**, Oliver (dramatist & poet); b. County Longford, Ire. (1728-1774).
- GOMPERS**, Samuel (labor leader); b. London, Eng. (1850-1924).
- GOODYEAR**, Charles (inventor); b. New Haven, Conn. (1800-1860).
- GORKI**, Maxim (Alexei Maximovich Peshkov) (author); b. Nizhni Novgorod, Rus. (1868-1936).
- GOULD**, Jay (Jason) (financier); b. Roxbury, N. Y. (1836-1892).
- GOUNOD**, Charles François (composer); b. Paris, Fr. (1818-1893).
- GOYA Y LUCIENTES**, Francisco José de (painter); b. Fuendetodos, Sp. (1746-1828).
- GRAY**, Thomas (poet); b. London, Eng. (1716-1771).
- GRECO**, El (Domenicos Theotocopoulos) (painter); b. Candia, Crete (c.1542-1614).
- GREELEY**, Horace (journalist & politician); b. Amherst, N. H. (1811-1872).
- GRIEG**, Edvard Hagerup (composer); b. Bergen, Nor. (1843-1907).
- GRIFFITH**, David Lewelyn Wark (movie producer); b. La Grange, Ky. (1875-1948).
- GRIMM**, Jacob (mythologist); b. Hanau, Ger. (1785-1863).
- GRIMM**, Wilhelm (mythologist); b. Hanau, Ger. (1786-1859).
- GUITRY**, Sacha (Alexandre) (actor & movie director); b. St. Petersburg, Rus. (1885-1957).
- GUTENBERG**, Johann (printer); b. Mainz, Ger. (1400?-1468).
- HALE**, Nathan (American Revolutionary officer); b. Coventry, Conn. (1755-1776).
- HALS**, Frans (painter); b. Antwerp, Hol. (1580?-1666).
- HAMILTON**, Alexander (statesman); b. Lee-ward Is. (1757?-1804).
- HANCOCK**, John (statesman); b. Braintree, Mass. (1737-1793).
- HANDEL**, George Frederick (composer); b. Halle, Ger. (1685-1759).
- HANDY**, William Christopher (blues composer); b. Florence, Ala. (1873-1958).
- HANNIBAL** (Carthaginian general) (247-183 B.C.).
- HARDY**, Thomas (novelist); b. Dorsetshire, Eng. (1840-1928).
- HARLOW**, Jean (Harlean Carpenter) (actress); b. Kansas City, Mo. (1911-1937).
- HARTE**, Bret (Francis Brett Harte) (author); b. Albany, N. Y. (1836-1902).
- HARVEY**, William (physician); b. Folkestone, Kent, Eng. (1578-1657).
- HAWTHORNE**, Nathaniel (novelist); b. Salem, Mass. (1804-1864).
- HAY**, John Milton (statesman); b. Salem, Ind. (1838-1905).
- HAYDN**, Franz Joseph (composer); b. Rohrau, Aus. (1732-1809).
- HEARST**, William Randolph (publisher); b. San Francisco, Calif. (1863-1951).
- HEGEL**, Georg Wilhelm Friedrich (philosopher); b. Stuttgart, Ger. (1770-1831).
- HEINE**, Heinrich (Harry) (poet); b. Düsseldorf, Ger. (1797-1856).
- HENRY**, O. (William Sydney Porter) (story writer); b. Greensboro, N. C. (1862-1910).
- HENRY**, Patrick (statesman); b. Hanover Co., Va. (1736-1799).
- HEPPLEWHITE**, George (furniture designer); b. England (?-1786).
- HERBERT**, Victor (composer); b. Dublin, Ire. (1859-1924).
- HEROD** (Herdoes) (called Herod the Great) (King of Judea) (73?-4 B.C.).
- HERODOTUS** (historian); b. Halicarnassus, Asia Minor (c.484-425 B.C.).
- HERRIOT**, Edouard (French statesman); b. Troyes, Fr. (1872-1957).
- HERSHOLT**, Jean (actor); b. Copenhagen, Den. (1886-1956).
- HINDENBURG**, Paul von (Paul Ludwig Hans Anton von Beneckendorff und von Hindenburg) (statesman); b. Posen, Prus. (1847-1934).
- HIPPOCRATES** (physician); b. Kos, Dodecanese (460?-377 B.C.).
- HITLER**, Adolf (Adolf Schicklgruber) (German dictator); b. Branau, Aus. (1889-1945).
- HOFMANN**, Josef (pianist); b. Cracow, Pol. (1876-1957).
- HOGARTH**, William (painter & engraver); b. London, Eng. (1697-1764).
- HOLBEIN**, Hans (the Elder) (painter); b. Augsburg, Bavaria (1465?-1524).
- HOLBEIN**, Hans (the Younger) (painter); b. Augsburg, Bavaria (1497?-1543).
- HOLMES**, Oliver Wendell (author); b. Cambridge, Mass. (1809-1894).
- HOLMES**, Oliver Wendell (jurist); b. Boston, Mass. (1841-1935).
- HOMER** (Greek poet) (c.850 B.C.).
- HOMER**, Winslow (painter); b. Boston, Mass. (1836-1910).
- HONEGGER**, Arthur (composer); b. Le Havre, Fr. (1892-1955).
- HORACE** (Quintus Horatius Flaccus) (poet); b. Venosa, Lucania (65-8 B.C.).
- HOUDINI**, Harry (Ehrich Weiss) (magician); b. Appleton, Wis. (1874-1926).
- HOUSMAN**, Alfred Edward (poet); b. Fockburg, Worcs., Eng. (1859-1936).
- HOUSTON**, Samuel (political leader); b. Rockbridge Co., Va. (1793-1863).
- HOWARD**, Leslie (actor); b. London, Eng. (1893-1943).
- HOWE**, Elias (inventor); b. Spencer, Mass. (1819-1867).
- HOWELLS**, William Dean (author); b. Martin's Ferry, Ohio (1837-1920).
- HUDSON**, Henry (English navigator) (?-1611).
- HUGHES**, Charles Evans (jurist); b. Glens Falls, N. Y. (1862-1948).

- HUGO**, Victor Marie (author); b. Besançon, Fr. (1802-1885).
- HULL**, Josephine (actress); b. Newtonville, Mass. (1886-1957).
- HUME**, David (philosopher); b. Edinburgh, Scot. (1711-1776).
- HUSTON**, Walter (actor); b. Toronto, Ont., Can. (1884-1950).
- HUXLEY**, Thomas Henry (biologist); b. Ealing, Eng. (1825-1895).
- IBSEN**, Henrik (dramatist); b. Skien, Nor. (1828-1906).
- INNESS**, George (painter); b. nr. Newburgh, N. Y. (1825-1894).
- IRVING**, Washington (author); b. New York City (1783-1859).
- JACKSON**, Thomas Jonathan (general); b. Clarksburg, Va. (now W. Va.) (1824-1863).
- JAMES**, Henry (novelist); b. New York City (1843-1916).
- JAMES**, Jesse Woodson (outlaw); b. Clay Co., Mo. (1847-1882).
- JAMES**, William (psychologist); b. New York City (1842-1910).
- JANIS**, Elsie (Elsie Bierbower) (actress); b. Columbus, Ohio (1889-1956).
- JAY**, John (statesman & jurist); b. New York City (1745-1829).
- JEFFRIES**, James J. (boxer); b. Carroll, Ohio (1875-1953).
- JENNER**, Edward (physician); Berkeley, Glos., Eng. (1749-1823).
- JOAN OF ARC** (Jeanne d'Arc) (saint & patriot); b. Domremy-la-Pucelle, Fr. (1412-1431).
- JOHNSON**, Jack (John A.) (boxer); b. Galveston, Tex. (1876-1946).
- JOHNSON**, Samuel (lexicographer & author); b. Lichfield, Staffs., Eng. (1709-1784).
- JOLIOT-CURIE**, Frédéric (physicist); b. Paris, Fr. (1900-1958).
- JOLIOT-CURIE**, Irène (Irène Curie) (physicist); b. France (1897-1956).
- JOLLIET** (or **JOLIET**), Louis (explorer); b. Beauré, Can. (1645-1700).
- JOLSON**, Al (Asa Yoelson) (actor & singer); b. St. Petersburg, Rus. (1886-1950).
- JONES**, John Paul (John Paul) (naval officer); b. Scotland (1747-1792).
- JONSON**, Ben (Benjamin) (poet & dramatist); b. Westminster, Eng. (1572-1637).
- JOYCE**, James (novelist); b. Dublin, Ire. (1882-1941).
- JOYCE**, Peggy Hopkins (nee Margaret Upton) (actress); b. Norfolk, Va. (1893?-1957).
- JUÁREZ**, Benito Pablo (statesman); b. Guelatao, Oaxaca, Mex. (1806-1872).
- KANT**, Immanuel (philosopher); b. Königsberg, Prus. (1724-1804).
- KEATS**, John (poet); b. London, Eng. (1795-1821).
- KEMAL ATATÜRK** (Mustafa Kemal) (statesman); b. Salonika, Turk. (1881-1938).
- KEPLER**, Johannes (astronomer); b. Weil, Württemberg, Ger. (1571-1630).
- KERN**, Jerome David (composer); b. New York City (1885-1945).
- KEY**, Francis Scott (lawyer); b. Frederick (now Carroll) Co., Md. (1779-1843).
- KEYNES**, John Maynard (economist); b. Cambridge, Eng. (1883-1946).
- KIDD**, William (called Capt. Kidd) (pirate); b. Greenock, Scot. (1645?-1701).
- KILMER**, Alfred Joyce (poet); b. New Brunswick, N. J. (1886-1918).
- KIPLING**, Rudyard (author); b. Bombay, India (1865-1936).
- KNOX**, John (religious reformer); b. Had-dington, E. Lothian, Scot. (1505-1572).
- KOSCIUSKO**, Thaddeus (Tadeusz Andrzej Bonawentura Kosciuszko) (military officer); b. province of Lithuania, Poland (1746-1817).
- KOUSSEVITZKY**, Serge (Sergei) Alexandrovitch (orchestra conductor); b. Russia (1874-1951).
- KUBLAI KHAN** (Mongol conqueror) (1216-1294).
- LAFAYETTE**, Marquis de (Marie Joseph Paul Yves Roch Gilbert du Motier) (military officer); b. Auvergne, Fr. (1757-1834).
- LA FOLLETTE**, Robert Marin (politician); b. Primrose, Wis. (1855-1925).
- LA GUARDIA**, Fiorello Henry (politician); b. New York City (1882-1947).
- LAMARCK**, Chevalier de (Jean Baptiste Pierre Antoine de Monet) (naturalist); b. Bazantin, Picardy (1744-1829).
- LAMB**, Charles (essayist); b. London, Eng. (1775-1834).
- LANDIS**, Kenesaw Mountain (jurist); b. Millville, Ohio (1866-1944).
- LANGTRY**, Lily (nee Emily Le Breton) (actress); b. Island of Jersey (1852-1929).
- LAO-TZU** (or **LAO-TSE**) (Li Erh) (philosopher); b. Honan prov., China (c.604-531 B.C.).
- LARDNER**, Ring (Ringgold Wilmer Lardner) (story writer); b. Niles, Mich. (1885-1933).
- LA SALLE**, Sieur de (Robert Cavellier) (explorer); b. Rouen, Fr. (1643-1687).
- LAUDER**, Sir Harry (Harry MacLennan) (singer); b. Portobello, Scot. (1870-1950).
- LAVOISIER**, Antoine Laurent (chemist); b. Paris, Fr. (1743-1794).
- LAWRENCE**, David Herbert (novelist); b. Nottingham, Eng. (1885-1930).
- LAWRENCE**, Gertrude (Gertrud Klasen) (actress); b. London, Eng. (1900-1952).
- LAWRENCE OF ARABIA** (Thomas Edward Lawrence; later changed name to Shaw); (author & soldier); b. Portmadoc, Wales (1888-1935).
- LEAR**, Edward (nonsense poet); b. London, Eng. (1812-1888).
- LEE**, Robert Edward (Confederate general); b. Stratford Estate, Va. (1807-1870).
- LEHÁR**, Franz (composer); b. Komárom, Hung. (1870-1948).
- LENIN**, Nikolai (Vladimir Illich Ulyanov) (statesman); b. Simbirsk, Rus. (1870-1924).
- LEONARD**, Benny (Benjamin Leiner) (boxer); b. New York City (1896-1947).
- LEWIS**, Meriwether (explorer); b. Albemarle Co., Va. (1774-1809).
- LEWIS**, Sinclair (novelist); b. Sauk Centre, Minn. (1885-1951).
- LIND**, Jenny (Johanna Maria Lind) (soprano); b. Stockholm, Swed. (1820-1887).

- LISTER**, Joseph (surgeon); b. Upton, Essex, Eng. (1827-1912).
- LISZT**, Franz (composer & pianist); b. Raiding, Hung. (1811-1886).
- LIVINGSTONE**, David (missionary & explorer); b. Lanarkshire, Scot. (1813-1873).
- LOYD GEORGE**, David (statesman); b. Manchester, Eng. (1863-1945).
- LOCKE**, John (philosopher); b. Somersetshire, Eng. (1632-1704).
- LODGE**, Henry Cabot (legislator); b. Boston, Mass. (1850-1924).
- LOMBARD**, Carole (Carol Jane Peters) (actress); b. Ft. Wayne, Ind. (1908-1942).
- LOMBROSO**, Cesare (criminologist); b. Verona, It. (1836-1909).
- LONDON**, Jack (novelist); b. San Francisco, Calif. (1876-1916).
- LONG**, Huey Pierce (politician); b. Winnfield, La. (1893-1935).
- LONGFELLOW**, Henry Wadsworth (poet); b. Portland, Maine (1807-1882).
- LOWELL**, Amy (poet); b. Brookline, Mass. (1874-1925).
- LOWELL**, James Russell (poet); b. Cambridge, Mass. (1819-1891).
- LOYOLA**, St. Ignatius of (Íñigo de Oñez y Loyola) (founder of Jesuits); b. Gúipuzcoa prov., Sp. (1491-1556).
- LUBITSCH**, Ernst (movie director); b. Berlin, Ger. (1892-1947).
- LUDENDORFF**, Erich Friedrich Wilhelm (general); b. Kruszevnia, Ger. (1865-1937).
- LUTHER**, Martin (religious reformer); b. Eisleben, Ger. (1483-1546).
- MacARTHUR**, Charles (dramatist); b. Scranton, Pa. (1895-1956).
- MACAULAY**, Thomas Babington (author); b. Leicestershire, Eng. (1800-1859).
- MacDONALD**, James Ramsay (statesman); b. Lossiemouth, Scot. (1866-1937).
- MacDOWELL**, Edward Alexander (composer); b. New York City (1861-1908).
- MACFADDEN**, Bernarr (physical culturist); b. nr. Mill Spring, Mo. (1868-1955).
- MACHIAVELLI**, Niccolò (political philosopher); b. Florence (1469-1527).
- MACK**, Connie (Cornellus McGillicuddy) (baseball executive); b. East Brookfield, Mass. (1862-1956).
- MAETERLINCK**, Count Maurice (author); b. Ghent, Belg. (1862-1949).
- MAGELLAN**, Ferdinand (Fernando de Magalhães) (navigator); b. Sabrosa, Port. (1480?-1521).
- MAGSAYSAY**, Ramón (statesman); b. Iba, Luzon, Philippines (1907-1957).
- MAHAN**, Alfred Thayer (naval historian); b. West Point, N. Y. (1840-1914).
- MAHLER**, Gustav (composer & conductor); b. Kalischt, Bohemia (1860-1911).
- MANET**, Edouard (painter); b. Paris, Fr. (1832-1883).
- MANN**, Horace (educator); b. Franklin, Mass. (1796-1859).
- MANN**, Thomas (novelist); b. Lübeck, Ger. (1875-1955).
- MANSFIELD**, Katherine (story writer); b. Wellington, N. Z. (1888-1923).
- MARAT**, Jean Paul (French revolutionist); b. Boudry, Neuchâtel, Switzerland (1743-1793).
- MARCONI**, Guglielmo (inventor); b. Bologna, It. (1874-1937).
- MARCUS AURELIUS** (Marcus Annius Verus) (Roman emperor); b. Rome (121-180).
- MARIE ANTOINETTE** (Joséphine Jeanne Marie Antoinette) (Queen of France); b. Vienna, Aus. (1755-1793).
- MARKHAM**, Charles Edwin (poet); b. Oregon City, Oreg. (1852-1940).
- MARLOWE**, Christopher (dramatist); b. Canterbury, Eng. (1564-1593).
- MARLOWE**, Julia (Sarah Frost) (actress); b. Cumberlandsire, Eng. (1866-1950).
- MARQUETTE**, Jacques (missionary & explorer); b. Laon, Fr. (1637-1675).
- MARSHALL**, John (jurist); b. nr. Germantown, Va. (1755-1835).
- MARK**, Karl (Socialist writer); b. Treves, Prus. (1818-1883).
- MARY STUART** (Queen of Scotland); b. Linlithgow, Scot. (1542-1587).
- MASARYK**, Thomas Garrigue (statesman); b. Hodonin, Moravia (1850-1937).
- MASSENET**, Jules Émile Frédéric (composer); b. Montaud, Fr. (1842-1912).
- MASTERS**, Edgar Lee (poet); b. Garnett, Kans. (1869-1950).
- MATISSE**, Henri (painter); b. Cateau, Fr. (1869-1954).
- MAUPASSANT**, Henri René Albert Guy de (story writer); b. Normandy, Fr. (1850-1893).
- MAXIMILIAN** (Ferdinand Maximilian Joseph) (Emperor of Mexico); b. Vienna, Aus. (1832-1867).
- MAXWELL**, James Clerk (physicist); b. Edinburgh, Scot. (1831-1879).
- McCARTHY**, Joseph R. (U. S. Senator); b. Grand Chute, Wis. (1908-1957).
- McCORMACK**, John (tenor); b. Athlone, Ire. (1884-1945).
- McCORMICK**, Cyrus Hall (inventor); b. Rockbridge Co., Va. (1809-1884).
- McGRAW**, John J. (baseball manager); b. Truxton, N. Y. (1873-1934).
- MEDICI**, Lorenzo de' (called Lorenzo the Magnificent) (Florentine ruler); b. Florence (1449-1492).
- MELBA**, Nellie (Helen Porter Mitchell) (soprano); b. nr. Melbourne, Australia (1861-1931).
- MELLON**, Andrew William (financier); b. Pittsburgh, Pa. (1855-1937).
- MELVILLE**, Herman (novelist); b. New York City (1819-1891).
- MENCKEN**, Henry Louis (author); b. Baltimore, Md. (1880-1956).
- MENDEL**, Gregor Johann (botanist); b. Heinzendorf, Silesia (1822-1884).
- MENDELEYEV**, Dmitri Ivanovich (chemist); b. Tobolsk, Siberia (1834-1907).
- MENDELSSOHN-BARTHOLDY**, Jakob Ludwig Felix (composer); b. Hamburg, Ger. (1809-1847).
- MESMER**, Franz Anton (physician); b. Itzmann, nr. Constance, Baden (1733-1815).
- METTERNICH**, Prince Klemens Wenzel Nepomuk Lothar von (statesman); b. Coblenz, Aus. (1773-1859).

- MICHELANGELO BUONARROTI** (painter & sculptor); b. Caprese, Tuscany, It. (1475-1564).
- MILL, John Stuart** (philosopher); b. London, Eng. (1806-1873).
- MILLAY, Edna St. Vincent** (poet); b. Rockland, Maine (1892-1950).
- MILLER, Glenn** (band leader); b. Clarinda, Iowa (1909?-1944).
- MILNE, Alan Alexander** (author); b. London, Eng. (1882-1956).
- MILTON, John** (pbet); b. London, Eng. (1608-1674).
- MINUIT, Peter** (Governor of New Amsterdam); b. Wesel, Rhenish Prussia (1580-1638).
- MITCHELL, Margaret** (novelist); b. Atlanta, Ga. (1900-1949).
- MOHAMMED** (prophet); b. Mecca, Arabia (570-632).
- MOLIÈRE** (Jean Baptiste Poquelin) (dramatist); b. Paris, Fr. (1622-1673).
- MOLNÁR, Ferenc** (dramatist); b. Budapest, Hung. (1878-1952).
- MONET, Claude** (painter); b. Paris, Fr. (1840-1926).
- MONTAIGNE, Michel Eyquem de** (essayist); b. nr. Bordeaux, Fr. (1533-1592).
- MONTEZUMA II** (Aztec emperor); b. Mexico (1480?-1520).
- MOORE, Thomas** (poet); b. Dublin, Ire. (1779-1852).
- MORE, Sir Thomas** (statesman & author); b. London, Eng. (1478-1535).
- MORGAN, Helen** (singer); b. Danville, Ohio (1900? 1941).
- MORGAN, John Pierpont** (financier); b. Hartford, Conn. (1837-1913).
- MORLEY, Christopher** (novelist); b. Haverford, Pa. (1890-1957).
- MORSE, Samuel Finley Breese** (painter & inventor); b. Charlestown, Mass. (1791-1872).
- MOUSSORGSKY, Modest Petrovich** (composer); b. Karev, Rus. (1839-1881).
- MOZART, Wolfgang Amadeus** (Johannes Chrysostomus Wolfgangus Theophilus Mozart) (composer); b. Salzburg, Aus. (1756-1791).
- MURILLO, Bartolomé Esteban** (painter); b. Seville, Sp. (1617-1682).
- MUSSOLINI, Benito** (Italian dictator); b. Dovia, Forlì, It. (1883-1945).
- NAPOLEON BONAPARTE** (Emperor of the French); b. Ajaccio, Corsica (1769-1821).
- NAST, Thomas** (cartoonist); b. Landau, Ger. (1840-1902).
- NATHAN, George Jean** (theater critic); b. Ft. Wayne, Ind. (1882-1958).
- NATION, Carry Amelia** (temperance leader); b. Garrard Co., Ky. (1846-1911).
- NELSON, Viscount Horatio** (naval officer); b. Burnham Thorpe, Norf., Eng. (1758-1805).
- NERO** (Nero Claudius Caesar Drusus Germanicus) (Roman emperor); b. Antium, Latium, It. (A.D. 37-68).
- NEWTON, Sir Isaac** (mathematician & scientist); b. nr. Grantham, Lincs., Eng. (1642-1727).
- NIETZSCHE, Friedrich Wilhelm** (philosopher); b. nr. Lützen, Saxony (1844-1900).
- NIGHTINGALE, Florence** (nurse); b. Florence, It. (1820-1910).
- NIJINSKY, Waslaw** (dancer); b. Warsaw, Pol. (1890-1950).
- NOBEL, Alfred Bernhard** (industrialist); b. Stockholm, Swed. (1833-1896).
- NOSTRADAMUS** (Michel de Notredame) (astrologer); b. St. Remi, Fr. (1503-1566).
- OCHS, Adolph Simon** (publisher); b. Cincinnati, Ohio (1858-1935).
- OFFENBACH, Jacques** (composer); b. Cologne, Ger. (1819-1880).
- OMAR KHAYYÁM** (poet & astronomer); b. Nishapur, Khurasan, Persia (died c. 1123).
- O'NEILL, Eugene Gladstone** (dramatist); b. New York City (1888-1953).
- OROZCO, José Clemente** (painter); b. Zapotlán, Jalisco, Mex. (1883-1949).
- OSLER, Sir William** (physician); b. Bondhead, Ont., Can. (1849-1919).
- IVID** (Publius Ovidius Naso) (poet); b. Sulmona, It. (43 B.C.-?A.D. 17).
- PADEREWSKI, Ignace Jan** (pianist & statesman); b. Podolia prov., Pol. (1860-1941).
- PAGANINI, Nicolò** (violinist); b. Genoa, It. (1782-1840).
- PAINE, Thomas** (political philosopher); b. Thetford, Eng. (1737-1809).
- PARNELL, Charles Stewart** (Irish nationalist leader); b. Avondale, Wicklow, Ire. (1846-1891).
- PASCAL, Blaise** (philosopher); b. Clermont, Fr. (1623-1662).
- PASTEUR, Louis** (chemist); b. Dole, Jura, Fr. (1822-1895).
- PAVLOV, Ivan Petrovich** (physiologist); b. Ryazan dist., Rus. (1849-1936).
- PAVLOVA, Anna** (ballerina); b. St. Petersburg, Rus. (1885-1931).
- PEARY, Robert Edwin** (explorer); b. Crescon, Pa. (1856-1920).
- PENN, William** (American colonist); b. London, Eng. (1644-1718).
- PEPYS, Samuel** (diarist); b. Bampton, Eng. (1633-1703).
- PERICLES** (statesman); b. Athens (died 429 B.C.).
- PERÓN, María Eva Duarte de** (political leader); b. Los Toldos, Arg. (1919-1952).
- PERSHING, John Joseph** (general); b. Linn Co., Mo. (1860-1948).
- PETRARCH** (Francesco Petrarca) (poet); b. Arezzo, It. (1304-1374).
- PINZA, Ezio** (basso); b. Rome, It. (1892-1957).
- PIRANDELLO, Luigi** (dramatist & novelist); b. nr. Gergenti, Sicily (1867-1936).
- PITT, William** ("Younger Pitt") (statesman); b. nr. Bromley, Eng. (1759-1806).
- PIZARRO, Francisco** (explorer); b. Trujillo, Sp. (1470?-1541).
- PLATO** (Aristocles) (philosopher); b. Athens (?) (427?-347 B.C.).
- PLUTARCH** (biographer); b. Chaeronea, Boeotia (A.D. 46?-?120).
- POCAHONTAS** (Matoaka) (American Indian princess); b. Virginia (?) (1595?-1617).
- POE, Edgar Allan** (poet & story writer); b. Boston, Mass. (1809-1849).

- POLO**, Marco (traveler); b. Venice. (1254?-1324).
- POMPEY** (Gnaeus Pompeius Magnus) (general); b. Rome (?) (106-48 B.C.).
- PONCE DE LEÓN**, Juan (explorer); b. Servas, Sp. (1460?-1521).
- POPE**, Alexander (poet); b. London, Eng. (1688-1744).
- POST**, Wiley (aviator); b. Texas. (1900-1935).
- PRIESTLEY**, Joseph (chemist); b. nr. Leeds, Eng. (1733-1804).
- PROKOFIEFF**, Sergei Sergeevich (composer); b. St. Petersburg, Rus. (1891-1953).
- PROUST**, Marcel (novelist); b. Paris, Fr. (1871-1922).
- PTOLEMY** (Claudius Ptolemaeus) (astronomer & geographer); b. Ptolemais Hermil (2nd century A.D.).
- PUCCINI**, Giacomo (composer); b. Lucca, It. (1858-1924).
- PULITZER**, Joseph (publisher); b. Makó, Hung. (1847-1911).
- PUSHKIN**, Alexander Sergeevich (poet & dramatist); b. Moscow, Rus. (1799-1837).
- PLYLE**, Ernest Taylor (journalist); b. Dana, Ind. (1900-1945).
- PYTHAGORAS** (mathematician & philosopher); b. Samos (6th century B.C.).
- RABELAIS**, François (satirist); b. nr. Chinon, Fr. (1494?-1553).
- RACHMANINOFF**, Sergei Wassilievitch (pianist & composer); b. Oneg Estate, Novgorod, Rus. (1873-1943).
- RACINE**, Jean Baptiste (dramatist); b. La Ferté-Milon, Fr. (1639-1699).
- RALEIGH**, Sir Walter (courtier & navigator); b. London, Eng. (1552?-1618).
- RAPHAEL** (Raffaello Santi) (painter); b. Urbino, It. (1483-1520).
- RASPUTIN**, Grigori Efimovich (monk); b. Tobolsk prov., Siberia (1871?-1916).
- RAVEL**, Maurice Joseph (composer); b. Ciboure, Fr. (1875-1937).
- REED**, Walter (army surgeon); b. Belroi, Va. (1851-1902).
- REINHARDT**, Max (Max Goldmann) (theater producer); b. nr. Vienna, Aus. (1873-1943).
- REMBRANDT** (Harmensz van Rijn Rembrandt) (painter); b. Leyden, Hol. (1606-1669).
- RENOIR**, Pierre Auguste (painter); b. Limoges, Fr. (1841-1919).
- RESPIGHI**, Ottorino (composer); b. Bologna, It. (1879-1936).
- REVERE**, Paul (silversmith); b. Boston, Mass. (1735-1818).
- REYNOLDS**, Sir Joshua (painter); b. nr. Plymouth, Eng. (1723-1792).
- RHODES**, Cecil John (South African statesman); b. Bishop Stortford, Herts., Eng. (1853-1902).
- RICE**, Grantland (sports writer); b. Murfreesboro, Tenn. (1880-1954).
- RICHELIEU**, Duc de Armand Jean du Plessis (cardinal); b. Paris (1585-1642).
- RILEY**, James Whitcomb (poet); b. Greenfield, Ind. (1849-1916).
- RIMSKI-KORSAKOV**, Nikolai Andreevich (composer); b. Tikhvin, Rus. (1844-1908).
- RIVERA**, Diego (painter); b. Guanajuato, Mex. (1886-1957).
- ROBESPIERRE**, Maximilien François Marie Isidore de (French Revolutionist); b. Arras, Fr. (1758-1794).
- ROBINSON**, Bill (Luther) (dancer); b. Richmond, Va. (1878-1949).
- ROBINSON**, Edwin Arlington (poet); b. Head Tide, Maine (1869-1935).
- ROCKEFELLER**, John Davison (capitalist); b. Richford, N. Y. (1839-1937).
- ROCKNE**, Knute Kenneth (football coach); b. Voss, Nor. (1888-1931).
- RODIN**, François Auguste René (sculptor); b. Paris, Fr. (1840-1917).
- ROENTGEN**, Wilhelm Konrad (physicist); b. Lennep, Prus. (1845-1923).
- ROGERS**, Will (William Penn Adair Rogers) (humorist); b. Oologah, Okla. (1879-1935).
- ROLLAND**, Romain (author); b. Clamecy, Fr. (1866-1944).
- ROMBERG**, Sigmund (composer); b. Hungary (1887-1951).
- ROSSETTI**, Dante Gabriel (painter & poet); b. London, Eng. (1828-1882).
- ROSSINI**, Gioacchino Antonio (composer); b. Pesaro, It. (1792-1868).
- ROSTAND**, Edmond (dramatist); b. Marseilles, Fr. (1868-1918).
- ROUSSEAU**, Jean Jacques (philosopher); b. Geneva, Switz. (1712-1778).
- RUBENS**, Peter Paul (painter); b. Siegen, Westphalia (1577-1640).
- RUNYON**, Alfred Damon (journalist); b. Manhattan, Kans. (1884-1946).
- RUSKIN**, John (art critic); b. London, Eng. (1819-1900).
- RUSSELL**, Lillian (Helen Louise Leonard) (soprano); b. Clinton, Iowa (1861-1922).
- RUTH**, Babe (George Herman Ruth) (baseball player); b. Baltimore, Md. (1895-1948).
- SAINT-GAUDENS**, Augustus (sculptor); b. Dublin, Ire. (1848-1907).
- SAINT-SAËNS**, Charles Camille (composer); b. Paris, Fr. (1835-1921).
- SAND**, George (Amandine Lucille Aurore Dudevant, nee Dupin) (novelist); b. Paris, Fr. (1804-1876).
- SANTAYANA**, George (philosopher); b. Madrid, Sp. (1863-1952).
- SAPPHO** (poet); b. Lesbos (lived c.600 B.C.).
- SARGENT**, John Singer (painter); b. Florence, It., of American parents (1856-1925).
- SARTO**, Andrea del (Andrea Domenico d'Agnolo di Francesco) (painter); b. Florence (1486-1531).
- SAUL** (King of Israel) (11th century B.C.).
- SCHILLER**, Johann Christoph (dramatist); b. Marbach, Wurttemberg, Ger. (1759-1805).
- SCHÖNBERG**, Arnold (composer); b. Vienna, Aus. (1874-1951).
- SCHOPENHAUER**, Arthur (philosopher); b. Danzig (1788-1860).
- SCHUBERT**, Franz Peter (composer); b. Vienna, Aus. (1797-1826).
- SCHUMANN**, Robert Alexander (composer); b. Zwickau, Saxony, Ger. (1810-1856).
- SCHUMANN-HEINK**, Ernestine (nee Roessler) (contralto); b. nr. Prague, Boh. (1861-1936).
- SCHURZ**, Carl (U. S. army officer & journalist); b. nr. Cologne, Ger. (1829-1906).

- SCOTT, Robert Falcon** (explorer); b. Devonport, Eng. (1868-1912).
- SCOTT, Sir Walter** (novelist); b. Edinburgh, Scot. (1771-1832).
- SHAKESPEARE, William** (dramatist); b. Stratford on Avon, Eng. (1564-1616).
- SHAW, George Bernard** (dramatist); b. Dublin, Ire. (1856-1950).
- SHELLEY, Percy Bysshe** (poet); b. nr. Horsham, Sus., Eng. (1792-1822).
- SHERATON, Thomas** (furniture designer); Stockton-on-Tees, Eng. (1751-1806).
- SHERIDAN, Richard Brinsley** (dramatist); b. Dublin, Ire. (1751-1816).
- SHERMAN, William Tecumseh** (army officer); b. Lancaster, Ohio (1820-1891).
- SHERWOOD, Robert Emmet** (dramatist); b. New Rochelle, N. Y. (1896-1955).
- SIBELIUS, Jean** (Johann Julius Christian Sibelius) (composer), b. Tavastehus, Fin. (1865-1957).
- SKINNER, Otis** (actor); b. Cambridge, Mass. (1858-1942).
- SLOAN, John** (painter); b. Lock Haven, Pa. (1871-1951).
- SMITH, Adam** (economist); b. Kirkcaldy, Ffls., Scot. (1723-1790).
- SMITH, Alfred Emanuel** (politician); b. New York City (1873-1944).
- SMITH, John** (American colonist); b. Wiltoughby, Lincs., Eng. (1580-1631).
- SMITH, Joseph** (religious leader); b. Sharon, Vt. (1805-1844).
- SOCRATES** (philosopher); b. Athens (469-399 B.C.).
- SOLOMON** (King of Israel); b. Jerusalem (?) (died c.933 B.C.).
- SOLOON** (lawgiver); b. Salamis, Gr. (638?-759 B.C.).
- SOPHOCLES** (dramatist); b. nr. Athens (496?-406 B.C.).
- SOTHERN, Edward Hugh** (actor); b. New Orleans, La. (1859-1933).
- SOUSA, John Philip** (composer); b. Washington, D. C. (1854-1932).
- SPENCER, Herbert** (philosopher); b. Derby, Eng. (1820-1903).
- SPENGLER, Oswald** (philosopher); b. Blankenburg, Ger. (1880-1936).
- SPENSER, Edmund** (poet); b. London, Eng. (1552?-1599).
- SPINOZA, Baruch** (philosopher); b. Amsterdam, Hol. (1632-1677).
- STALIN, Joseph Vissarionovich** (Iosif V. Dzhugashvili) (statesman); b. nr. Tiflis, Georgia, Rus. (1879-1953).
- STANISLAVSKI** (Konstantin Sergeevich Alekseev) (stage producer); b. Moscow, Rus. (1863-1938).
- STANLEY, Sir Henry Morton** (John Rowlands) (explorer); b. Denbigh, Wales (1841-1904).
- STEIN, Gertrude** (author); b. Allegheny, Pa. (1874-1946).
- STEINMETZ, Charles Proteus** (engineer); b. Breslau, Ger. (1865-1923).
- STENDHAL** (Marie Henri Beyle) (novelist); b. Grenoble, Fr. (1783-1842).
- STERNE, Laurence** (novelist); b. Clonmel, Ire. (1713-1768).
- STEVENSON, Robert Louis Balfour** (novelist & poet); b. Edinburgh, Scot. (1850-1894).
- STOKES, Thomas Lunsford, Jr.** (journalist); b. Atlanta, Ga. (1898-1958).
- STONE, Lucy** (woman suffragist); b. nr. West Brookfield, Mass. (1818-1893).
- STOWE, Harriet Elizabeth** (nee Beecher) (novelist); b. Litchfield, Connecticut (1811-1896).
- STRADIVARI, Antonio** (violinmaker); b. Cremona, It. (1644-1737).
- STRAUSS, Oskar** (composer); b. Vienna, Aus. (1870-1954).
- STRAUSS, Johann** (composer); b. Vienna, Aus. (1825-1899).
- STRAUSS, Richard** (composer); b. Munich, Ger. (1864-1949).
- STUART, Gilbert Charles** (painter); b. Rhode Island (1755-1828).
- STUYVESANT, Peter** (Governor of New Amsterdam); b. W. Friesland, Neth. (1592-1672).
- SULLIVAN, Sir Arthur Seymour** (composer); b. London, Eng. (1842-1900).
- SULLIVAN, Francis L.** (actor); b. London, Eng. (1903-1956).
- SULLIVAN, John Lawrence** (boxer); b. Boston, Mass. (1858-1918).
- SUN Yat-Sen** (statesman); b. nr. Macao, China (1866-1925).
- SWIFT, Jonathan** (satirist); b. Dublin, Ire. (1667-1745).
- SWINBURNE, Algernon Charles** (poet); b. London, Eng. (1837-1909).
- SWOPE, Herbert Bayard** (journalist); b. St. Louis, Mo. (1882-1958).
- SYNGE, John Millington** (dramatist); b. nr. Dublin, Ire. (1871-1909).
- TAFT, Robert Alphonso** (legislator); b. Cincinnati, Ohio (1889-1953).
- TAGORE, Sir Rabindranath** (poet); b. Calcutta, India (1861-1941).
- TALLEYRAND-PÉRIGORD, Charles Maurice de** (statesman); b. Paris, Fr. (1754-1838).
- TAMERLANE** (Timur) (Mongol conqueror); b. nr. Samarkand, Sib. (1336?-1405).
- TARKINGTON, Newton Booth** (novelist); b. Indianapolis, Ind. (1869-1946).
- TCHAIKOVSKY** (or TSCHAIKOWSKY), Peter (Pëtr) Illich (composer); b. Ural region, Rus. (1840-1893).
- TECUMSEH** (Shawnee Indian chief); b. nr. Springfield, Ohio (1768?-1813).
- TENNYSON, Alfred** (1st Baron Tennyson) (poet); b. Somersby, Lincs., Eng. (1809-1892).
- TERRY, Ellen Alicia** (actress); b. Coventry, Eng. (1848-1928).
- TETRAZZINI, Luisa** (soprano); b. Florence, It. (1871-1940).
- THACKERAY, William Makepeace** (novelist); b. Calcutta, India (1811-1863).
- THOMAS, Dylan Marlais** (poet); b. Caermarthenshire, Wales (1914-1953).
- THOREAU, Henry David** (naturalist & author); b. Concord, Mass. (1817-1862).
- THORPE, Jim** (James Francis Thorpe) (athlete); b. nr. Prague, Oklahoma (1888-1953).
- TILDEN, William Tatem, II** (tennis player); b. Philadelphia, Pa. (1893-1953).
- TINTORETTO, II** (Jacopo Robusti) (painter); b. Venice (1518-1594).

- TITIAN** (Tiziano Vecelli) (painter); b. Preve di Cadere, Venezia, It. (1477-1576).
- TODD, Mike** (Avrom Goldbogen) (movie producer); b. Minneapolis (1909-1958).
- TOLSTOI, Count Leo** (Lev) Nikolaevich (novelist); b. Tula prov., Rus. (1828-1910).
- TOSCANINI, Arturo** (orchestra conductor); b. Parma, It. (1867-1957).
- TOULOUSE-LAUTREC** (Henri Marie Raymond de Toulouse-Lautrec Monfa) (painter); b. Albi, Fr. (1864-1901).
- TROTSKY, Leon** (Lev Davidovich Bronstein) (statesman); b. Elisavetgrad, Rus. (1879-1940).
- TURGENEV, Ivan Sergeevich** (novelist); b. Orel, Rus. (1818-1883).
- Twain, Mark** (Samuel Langhorne Clemens) (author); b. Florida, Mo. (1835-1910).
- TWEED, William Marcy** (politician); b. New York City (1823-1878).
- VALENTINO, Rudolph** (Rodolpho d'Anton-guolla) (actor); b. Castellana, It. (1895-1926).
- VANDENBERG, Arthur Hendrick** (legislator); b. Grand Rapids, Mich. (1884-1951).
- VANDERBILT, Cornelius** (financier); b. Port Richmond, N. Y. (1794-1877).
- VAN DRUTEN, John** (dramatist); b. London, Eng. (1901-1957).
- VANDYKE** (or **VAN DYCK**), Sir Anthony (painter); b. Antwerp, Hol. (1599-1641).
- VAUGHAN WILLIAMS, Ralph** (composer); b. Down Ampney, Eng. (1872-1958).
- VELÁZQUEZ, Diego Rodriguez de Silva y** (painter); b. Seville, Sp. (1599-1660).
- VERDI, Giuseppe** (composer); b. Roncole, Parma, It. (1813-1901).
- VERMEER, Jan** (or Jan van der Meer van Delft) (painter); b. Delft, Hol. (1632-1675).
- VERNE, Jules** (author); b. Nantes, Fr. (1828-1905).
- VILLA, Pancho** (Doroteo Arango) (bandit); b. Rio Grande, Mex. (1877-1923).
- VILLON, François** (François de Montcorbier) (poet); b. Paris, Fr. (1431-c.1463).
- VINCI, Leonardo da** (painter & scientist); b. Vinci, Tuscany, It. (1452-1519).
- VIRGIL** (or **VERGIL**) (Publius Vergilius Maro) (poet); b. Mantua, Gaul (70-19 B.C.).
- VOLTAIRE** (François Marie Arouet) (author); b. Paris, Fr. (1694-1778).
- VON STROHEIM, Erich** (actor); b. Vienna, Aus. (1885-1957).
- WAGNER, Honus** (John Wagner) (baseball player); b. Mansfield, Pa. (1874-1955).
- WAGNER, Wilhelm Richard** (composer); b. Leipzig, Ger. (1813-1883).
- WALTON, Izaak** (author); b. Stafford, Eng. (1593-1683).
- WARD, Fannie** (actress); b. St. Louis, Mo. (1872-1952).
- WASHINGTON, Booker Tallaferro** (educator); b. Franklin Co., Va. (1856-1915).
- WATSON, Thomas John** (industrialist); b. Campbell, N. Y. (1874-1956).
- WATT, James** (inventor); b. Greenock, Scot. (1736-1819).
- WAYNE, Anthony** (military officer); b. Waynesboro, Pa. (1745-1796).
- WEBER, Karl Maria Friedrich Ernst von** (composer); b. nr. Lübeck, Ger. (1786-1826).
- WEBSTER, Daniel** (statesman); b. Salisbury, N. H. (1782-1852).
- WEBSTER, Noah** (lexicographer); b. West Hartford, Conn. (1758-1843).
- WEILL, Kurt** (composer); b. Dessau, Ger. (1900-1950).
- WEIZMANN, Chaim** (Israeli statesman); b. Grodno prov., Rus. (1874-1952).
- WELLINGTON, Duke of** (Arthur Wellesley) (statesman); b. Ireland (1769-1852).
- WELLS, Herbert George** (author); b. Bromley, Kent, Eng. (1866-1946).
- WESLEY, John** (religious leader); b. Lincolnshire, Eng. (1703-1791).
- WESTINGHOUSE, George** (inventor); b. Central Bridge, N. Y. (1846-1914).
- WHARTON, Edith Newbold** (nee Jones) (novelist); b. New York City (1862-1937).
- WHISTLER, James Abbott McNeill** (painter); b. Lowell, Mass. (1834-1903).
- WHITE, William Allen** (journalist); b. Emporia, Kans. (1868-1944).
- WHITMAN, Walt** (Walter) (poet); b. West Hills, N. Y. (1819-1892).
- WHITNEY, Eli** (inventor); b. Westboro, Mass. (1765-1825).
- WHITTIER, John Greenleaf** (poet); b. Haverhill, Mass. (1807-1892).
- WILDE, Oscar** (Oscar O'Flahertie Wills) (author); b. Dublin, Ire. (1854-1900).
- WILLIAMS, Roger** (clergyman); b. London, Eng. (1603?-1683).
- WILLKIE, Wendell Lewis** (lawyer); b. Elwood, Ind. (1892-1944).
- WINTHROP, John** (1st Gov., Mass. Bay Colony); b. Suffolk, Eng. (1588-1649).
- WISE, Stephen Samuel** (rabbi); b. Budapest, Hung. (1874-1949).
- WOLFE, Thomas Clayton** (novelist); b. Asheville, N. C. (1900-1938).
- WOLSEY, Thomas** (prelate & statesman); b. Ipswich, Eng. (1475?-1530).
- WOOD, Grant** (painter); b. Anamosa, Iowa (1892-1942).
- WOOLF, Adeline Virginia** (nee Stephens) (novelist); b. London, Eng. (1882-1941).
- WOOLLCOTT, Alexander** (author); b. Phalanx, N. J. (1887-1943).
- WORDSWORTH, William** (poet); b. Cockermouth, Cumb., Eng. (1770-1850).
- WRIGHT, Orville** (inventor); b. Dayton, Ohio (1871-1948).
- WRIGHT, Wilbur** (inventor); b. Millville, Ind. (1867-1912).
- YEATS, William Butler** (poet); b. nr. Dublin, Ire. (1865-1939).
- YOUNG, Brigham** (religious leader); b. Whitingham, Vt. (1801-1877).
- YOUNG, Cy** (Denton True Young) (baseball player); b. Gilmore, Ohio (1867-1955).
- YOUNG, Robert R.** (railroad executive); b. Canadian, Tex. (1897-1958).
- ZAHARIAS, Mildred** (Babe) Didrikson (athlete); b. Port Arthur, Tex. (1912-1956).
- ZIEGFELD, Florenz** (theatrical producer); b. Chicago, Ill. (1869-1932).
- ZOLA, Émile** (novelist); b. Paris, Fr. (1840-1902).
- ZOROASTER** (religious leader); b. Persia (lived about the 6th century B.C.).

PARLIAMENTARY PROCEDURE

by

Dan Golenpaul

Parliamentary procedures are rules for the conduct of a meeting in an orderly and democratic manner. Their purpose is to ensure the rule by a majority and to protect the rights of all members of an organization or assembly in meetings and in connection with all activities of the organization. The application of parliamentary rules is solely for this purpose.

Very often, though, individuals employ the rules for a contest of wits. This practice can be interesting and the life of the meeting, but it can also be a nuisance and a field day for parliamentary pests. The degree to which this activity may be tolerated should be dictated by circumstances. A certain amount of indulgence may be necessary because it is part of the game and is inevitably an expression of many egos that meet in a group.

Under no circumstances, however, should a chairman or members permit anyone to use the rules of procedure to trick and confuse members or to impede the function of a meeting. To prevent these occurrences, a knowledge of parliamentary rules is important. We will do our best in the limited space permitted to impart a little learning. (But remember, a little learning is a dangerous thing.) What we are setting forth here should be adequate to take care of most situations in organizations made up of friendly people who want to conduct their business in an orderly, friendly manner.

If it is necessary for you to be a member of a group that is involved in bitter conflicts, then we advise that you go to more technical and authoritative works on parliamentary procedure such as *Robert's Rules of Order*, *Cushing's Manual*, *Sturgis' Standard Code of Parliamentary Procedure* and others. We also suggest that you go to the meetings with a good lawyer and a baseball bat.

HOW TO FORM AN ORGANIZATION

People form or join organizations because they have a common interest or purpose that can best be advanced and attained through group activity. Whether the character of the organization be social, political, educational, communal, fraternal or athletic, its purpose and government are usually expressed in by-laws. They are not required to be elaborate, technical or legal.

BY-LAWS

By-laws should simply state the objects of the organization, the rights and duties of members, the qualifications of members, the number required to constitute a quorum, the dues, the necessary governing officers and how they should be elected, their terms of office, when meetings should be held and where, the order of business and, in the case of large and impersonal organizations, an authority for settling parliamentary disputes. (An organization usually adopts as its guide such works as mentioned heretofore.)

FIRST MEETING

At the first meeting of a group, temporary officers are chosen: a chairman, a secretary and a committee to prepare a draft of by-laws. The meeting is called to order by the member of the group who has assumed the leadership in the formation of the organization. He or she opens the meeting by the simple statement: "I now call the meeting to order," and asks the members to make nominations for chairman. When this announcement is made, members may ask for the floor by raising their hands, and, when recognized, offer a name in nomination. The person presiding can be nominated as can any other member present. Nominations require no seconding. A majority vote is necessary for the election of the chairman. The same procedure is required for the secretary and committee on by-laws.

The officers selected at the first meeting may serve until the next meeting or for a limited period, to be decided by a majority vote of the members present.

SECOND MEETING

At the second meeting, the report of the committee on by-laws is presented to the membership. The entire report may be accepted by a motion to adopt the report. A two-thirds vote is required. If the entire report is not acceptable to the membership, each provision may be considered separately; consideration consists of debating, amending, accepting or rejecting. The vote required on each provision is two-thirds of the membership present instead of the usual majority. Because by-laws are the fundamental basis of the organization, they should be acceptable to as many members as possible.

By-laws can be amended at any time during the life of the organization. Any proposals for changes in the by-laws require prior notice in writing to the entire membership before acting upon the proposed amendments at any meeting.

ELECTION OF OFFICERS

With the adoption of the by-laws providing for the type of officers for the organization, and the length of their terms, the organization proceeds to elect such officers. The usual officers for most groups are a president, vice-president, recording secretary, corresponding secretary, treasurer, sergeant at arms, and committees. Some have an executive secretary, a paid job, but an organization would have to be large to warrant a paid official.

All members are eligible for office when an organization is first formed. But later the by-laws may require a certain minimum period of membership as a qualification to hold office. Nominations are made by the simple statement: "I nominate so-and-so." The nominations do not require a second and a majority vote is necessary for election.

DUTIES OF OFFICERS

President: The president, as in government, is top man in an organization. Some organizations call this official "chairman." President sounds better, and is more appropriate when he performs not only the functions of presiding at meetings, but other duties in directing the organization. Chairman is the proper designation for one elected only to preside at a meeting.

Their duties as presiding officers are identical, regardless of title; they call the meeting to order, then present the order of business which the meeting is to act upon. They recognize members who desire the floor for a proposal or a discussion. They are supposed to see that everyone who wishes to speak has the opportunity, and to do as little talking themselves as possible. The presiding officer has the right to take part in a discussion. When he does, the vice-chairman should take the chair until the presiding officer has concluded his talk.

A chairman is really a moderator who directs, controls and regulates proceedings. He is neither a boss nor an antagonist and is not to be regarded as such by the members. It is the chairman's primary job to keep the meetings moving smoothly. He should prevent members from abusing their privileges without interference, but should not curb their rights. The chairman must entertain all motions that are seconded and must restate them for the members. He must call for a vote on motions and declare the motion adopted or defeated on the basis of the vote. He should allow for a re-count or a roll call whenever requested to do so. When referring to himself, the presiding officer usually says: "The chair recognizes Mr. Blank" instead of "I recognize Mr. Blank."

The president or permanent chairman is usually an ex-officio member of all committees. Although he is not obligated to attend all meetings, he may if he so desires.

Secretary: The duties of a secretary are to keep the records of the organization, to record the minutes of the meetings, to handle the correspondence (unless the organization is large enough to require a corresponding secretary), such as notifying members of regular meetings or of a special meeting, reading the minutes at the meeting, etc.

The minutes of a secretary should indicate when the meeting was held, where it took place, who presided, what business was transacted, when the meeting adjourned, etc.

Treasurer: The treasurer's duties are to handle the funds of the organization, to collect the dues, to pay the bills when

authorized, to keep the books for the organization with records of income and expenditures, and to render reports on finances at the regular meetings.

Sergeant-at-Arms: The duties of the sergeant-at-arms are to assist the chairman in preserving order among the people present at a meeting, members and visitors, to act as a sort of usher by checking people at the door to see that only those entitled to be present at the meeting are admitted, and to escort anyone out if requested to do so by the chairman.

COMMITTEES

The purpose of committees is to expedite the transaction of business on matters that require more time than the meeting permits, or on matters that require time for investigation and special study. Committees are essential in a large organization, but are really not necessary for a small group that can handle its limited business at the regular membership meetings.

The types of committee may vary according to the needs of an organization. A "standing" committee has a fixed term of office and gives continuous service. A "special" committee serves temporarily to investigate and report on some special project or condition.

The top committee in most organizations is the executive committee, sometimes made up of the chairmen of the various committees, sometimes selected from the general membership. Other committees are: membership committees, athletic committees, education committees, social or house committees, committees on finance, temporary committees to deal with a temporary specific problem, etc.

Committees may be appointed by the presiding officer, or be elected by the group, depending upon the by-laws. We think it best for committees to be elected by the membership. The chairman of the committee is either designated by the presiding officer, elected by the committee, or is the person obtaining the most votes in the election. Committees should consist of an odd number of members to assure a majority vote and a minimum of stalemates. As far as possible, the by-laws governing

the conduct of a meeting or organization govern the committees as well.

Most committees are usually made up of small groups and, therefore, their meetings are less formal than regular organization meetings. Motions do not require seconding, speeches are not as restricted and limited, and the chairman attending the committee, or the president of the organization, if attending the committee meeting, participates in the discussions on a par with the other members.

Providing for numerous officers is a good thing because it distributes responsibility among more members. This is important to keep in mind in connection with committees; while good people should be placed on many committees, it is best and advisable to have as many members on committees as possible.

The committee chairman reports for the committee to the general membership meeting. Reports of the committee may consist only of information requiring no action or may contain recommendations for certain action which is often the equivalent of a proposed motion.

When there is a difference of opinion among committee members, the majority report offered is considered the committee report. The dissenting members have the right, however, to submit a minority report proposing a different course of action. Both reports must be heard or read at the same meeting. No action on the majority report is in order until the minority report is disposed of. It can be disposed of in either of two ways. (a) Any member may object to consideration of the minority report and such objection must be voted on immediately without debate. If carried, the minority report is dropped. (b) If the objection to consideration is not upheld, then a motion to substitute the minority report for the majority report is in order. If this motion is carried, the majority report is eliminated and the minority report becomes the committee report and is the only report before the body. If the motion to substitute is not carried, then the meeting proceeds to deal with the majority report.

It is well to bear in mind that any report or motion belongs to the membership.

If they are not satisfied with either report, they can dissolve the committee and act directly from the floor or appoint a new committee.

The chairman of the committee calls the meetings of the committee. If he fails or refuses to do so, or if he is absent, any two members of the committee may call a meeting. The chairman of a committee usually acts as its secretary.

If a committee fails to render a report on a matter referred to it within a reasonable time, the membership may force it to do so by drawing up a petition bearing the number of signatures required in the by-laws. This is called **discharging a committee**.

ORDER OF BUSINESS

The chairman calls the meeting to order. He must determine whether a quorum is present. The number of members required to constitute a quorum is stipulated in the by-laws, usually one more than half of the membership, or as low as one-tenth of the membership. Without a quorum, business cannot be legally conducted. The secretary reads the minutes of the previous meeting and they are adopted, perhaps with corrections, or as read. Officers and committees make any reports they have. Old business left over from the previous meeting is transacted. New business is brought up, discussed and acted upon. At the close, the chairman says that he will entertain a motion for adjournment.

RULES OF DEBATE

The presiding officers should first recognize the mover of a proposal, or the member of a committee presenting a report, and should try to alternate recognition between those favoring and those opposing a proposition. Any member is entitled to speak on the main question and on each amendment as presented. He must confine himself to the question under consideration, must avoid personalities, and must not accuse others of ill motives. In some groups the by-laws limit each speaker to a fixed number of minutes. The meeting may vote to extend the time of a speaker if it so desires. Debate can only be halted by a motion for the previous question and a two-thirds vote is required.

VOTING RULES

There are several methods of taking a vote. The simplest is by voice—"ayes" and "noes." This may be challenged by any member who thinks that the chairman did not hear correctly, in which case the vote is taken by a show of hands, or by standing. Roll call votes, recorded by the secretary, are required in some instances. The closed ballot (written votes) also is commonly used, especially in the election of officers. Only attending members may vote, unless the by-laws specifically permit proxy voting. A tie vote defeats a motion. The chairman is allowed to break a tie, though, if he has not previously voted. Some organizations permit a chairman to vote only in case of a tie, while others allow him to vote as a regular member.

A majority vote is generally required to pass ordinary motions or to adopt ordinary actions. There are certain motions which require a two-thirds vote of those present. These generally include the following: amendments to the by-laws, to take up a question out of its proper order, to suspend the rules, to support an objection to the consideration of a question, to take up the previous question, to limit debate, to expel a member or officer, to discharge a committee, or to refer back to a committee. No vote can be made unanimous if even one member present objects.

WHAT HAPPENS TO A MOTION

A motion is a proposal for action by an organization. It is made by any member who asks the chair for the floor and is properly recognized. Most motions require a second before being placed before the group. Not more than one main motion may be considered at a time. The procedure is simple. One merely says, "I move the following." The chairman then asks if anyone seconds the motion. If it is properly seconded, the chairman announces that a motion has been made and seconded, calls for a discussion and repeats the motion on request. A motion may be voted on without discussion, but discussion is required if requested by any member.

A motion causes many things to happen. It provokes debate, suggests modifications,

clarifies the thinking and expresses the will of the group on a question. Once a motion is presented to the membership, it belongs to them to treat and dispose of in any one of several ways and can only be withdrawn with the consent of the membership.

A motion may be amended. This means that the motion may be modified or qualified by adding, substituting, or eliminating words or whole paragraphs. These changes must be relevant to the main motion.

For example, a motion is made for the organization to publish a magazine and stipulates (a) the publication to be a monthly, (b) to have two editors, (c) to cost the members \$1.00 a year, etc. This motion may be amended as follows: (a) to substitute "weekly" for "monthly," (b) to provide salaries for the two editors, (c) to eliminate the dollar charge for the magazine. All these amendments are in order because while the original motion has been amplified or qualified by the amendments, the proposal for publishing a magazine still prevails.

Amendments that are irrelevant are not permissible, such as an amendment requiring the editors to watch television. This is improper (perhaps for other reasons) because it is extraneous to the main question of proposing the publication of a magazine.

Amendments that negate the purpose of the motion, such as a proposal that the organization should not publish a magazine, are out of order because if the membership is entirely opposed to the idea, it can vote against the main motion or dismiss it in other parliamentary ways.

Other important rules governing amendments are:

1. There is no limit to the number of amendments that may be offered, but each amendment must be disposed of before a new one may be proposed.

2. After all amendments have been acted on, the meeting votes on the main motion, and all of the adopted amendments are incorporated in the main motion.

3. All amendments require a majority vote for passage.

4. A rejected amendment may not be resubmitted in identical form and no amend-

ment may be offered reversing an amendment previously adopted.

This is not all that can happen to a motion. In addition to amendments to the motion, you are also permitted to make amendments to the amendments. For example, the original motion stipulates that the magazine should have two editors. An amendment provides that the editors be paid salaries. This amendment can be amended to provide what the salary should be.

Now, if you are thinking of whether you can amend the amendment to the amendment, the answer is "No." Although this has really gone far enough, there is something else you are allowed to do, for better or worse, and that is to introduce a substitute for the motion itself or for any of the amendments or for everything that has been proposed on the question. The substitute for an amendment does not modify the amendment, but replaces it and is subject to the same rules that apply to amendments.

When amendments pile up to the point of confusing the membership, resorting to a substitute for the entire proposition may be helpful. The best way to do this, under the circumstances, is for someone to move to have a special committee designated to prepare a substitute motion for the whole.

If the motion is adopted, the committee-elect should withdraw from the meeting to try to reconcile any contradictions contained in the motion or the amendments. It should bring forth a clear substitute that expresses the intentions of most of the proposals.

Let us not lose sight of the fact that the purpose of a motion is not to create an endless chain of acts, but to get something done. In this connection, it is well to bear in mind that the motion and amendments do not necessarily conflict and that the proposer of a motion may accept the amendments without discussion or vote.

Motions that cannot be amended: These include such motions as questions of order or appeal, objections to consideration of the question, or motions to adjourn, to call for the order of the day, to vote, to withdraw a motion, to take up a question out

of proper order, to suspend the rules, to table, to take from the table, to reconsider, to consider the previous question, to postpone indefinitely, to amend an amendment, or to nominate. Motions to postpone indefinitely, to limit debate, or to recess can be amended as to time only.

DELAYING OR CANCELING CONSIDERATION OF A MOTION

It is not binding on a meeting to deal with a motion at the time it is proposed. On the contrary, the membership has the choice of postponing or renewing consideration of a motion. Here are some of the ways to attain such objectives.

Objection to consideration: Consideration of any issue may be stopped before discussion begins on the question, even though it involves interrupting the speaker, by objecting to its consideration. This objection may be made by any member and does not require a second. Objection to consideration calls for an immediate vote without debate or amendment and requires a two-thirds vote. If carried, the motion is dropped for all time. The purpose of the act is to prevent the meeting from dealing with a question that may be offensive. This reason should be primary. Other reasons may be that it might waste the time of the meeting or it may be inappropriate to deal with the question at the time. This action is very drastic and should not be employed to gag any member except the village idiot at his worst.

Motion to postpone indefinitely: This is a polite way of killing a motion, at least for the moment. It differs from "Objection to consideration" insofar as the motion to postpone indefinitely and the motion itself are debatable and cannot be made while a member has the floor. This motion requires a second and calls for a majority vote. It cannot be amended and cannot be brought up again.

Motion to "lay on the table": If the meeting does not want to consider the motion at all, the procedure is to make a motion to "lay the question on the table." This suspends consideration of the main motion and amendments until such time

as the group chooses to take it up again, which can be later at the same meeting after other business has been transacted or at any subsequent meeting. This motion must be seconded, requires a majority vote, may not be debated or amended or postponed. The only way to bring the motion back is to move to "take it off the table."

Motion to postpone to a definite date: This is an expression of the will of the meeting to put off consideration of the proposal until later in the same session or until a subsequent meeting. The object of such an act is to delay consideration of the question until more members are present, or to enable members to acquire further information before making their decisions. This motion is debatable only as to the advisability of postponement. The subject matter of the motion is not debatable. It is open for amendment as to time only and requires a majority vote.

Motion to refer to a committee: This is usually done if a meeting feels that a question requires more time and information before it acts upon it. A motion to refer to a committee names an existing committee or creates a special committee for its consideration and may be accompanied by instructions. Seconding and a majority vote are required for passage of this motion. It can be debated only as to the desirability and advisability of referring it to the committee. It can be amended only as to the nature of the committee and as to the instructions.

HOW TO REOPEN A QUESTION

To avoid finality of decisions that may be harmful to the best interests of the members, certain actions previously taken by the members are subject to review by them. Such review may apply to matters acted upon, matters postponed, or matters delegated to committees.

Motion to reconsider: This deals with something acted upon by a meeting which the members would like to reconsider at another time during the same meeting. It is a motion that should be made by one who has voted with the majority, whether in the affirmative or the negative, and is

made because the voter has changed his mind on the matter in the light of new information. Very often a member deliberately votes for or against motions so that he can move for reconsideration of the subject later in the meeting when there may be a better chance for passing or defeating the motion because more members are present, or because he will have an opportunity to persuade other members to change their votes. This is both good parliamentary procedure and democratic.

A motion to reconsider requires a second, a majority vote, is debatable and cannot be renewed. If a motion to reconsider is carried, the question is before the assembly with its original parliamentary status. Motions that cannot be reconsidered include: motions to take from the table, to lay on the table, or a motion for indefinite postponement that has been defeated.

To take from the table: This motion allows a group to take up a subject that was set aside by a motion to table it at a previous meeting. This resumption of consideration on a question rates priority over any new motions and can be introduced when there is no other business before the body. Motion to take a question from the table requires a second and a majority vote, is not debatable and cannot be amended.

A motion to rescind: This motion enables the membership to re-evaluate some action taken in the past because it may have been adopted without full understanding of the consequences at that time. The point of rescinding a previous act of an organization does not apply to any legally binding act committing the organization, nor to the election of members or officers. This motion calls for a second and majority vote unless the original motion involved required a two-thirds vote. It is debatable and cannot be amended.

Several important techniques for keeping informed about proceedings, preventing violations and protecting the rights of members, correcting errors, and expediting the business at hand, are:

Moving the Previous Question: This asks that the discussion be stopped at once on any motion before the body. A move for the previous question cannot interrupt the speaker. It requires a second, is not de-

batable, cannot be amended, and requires a two-thirds vote. Its purpose is to say "Let's stop talking and vote."

Point of Information: This is a method of obtaining information about what is occurring through the medium of the chairman or the speaker. This interruption request is permissible even when one is speaking. It is unusual for the speaker or the chair to ignore such a request. Since it is intended only to secure information, it is not proper to use this as a device to make a statement or delay proceedings.

Point of Order: This questions the correctness of any action at the time it occurs. The only time that a point of order can be employed *after* an action has taken place is if it involves a violation of by-laws, constitution, or the law. It is raised on the basis of a mistake or omission in procedure, of a violation of the rules of the organization, of decorum in debate, or of irrelevancy of debate and procedure. A point of order needs no seconding, cannot be amended and requires no vote.

A point of order may be raised by any member at any time. It is in the nature of a demand addressed to the chair, which is required to act immediately on the point of order raised. The procedure is as follows: A member announces, "I rise to a point of order." This automatically halts any discussion or action until the chairman rules on the point of order. If the chairman concurs, he announces that the point of order was well taken, and proceeds to correct whatever is in question.

Appeal: If any other member takes exception to this ruling, he may appeal from the decision of the chair. Another basis for an appeal may result when the chair declares the point of order not well taken. This appeal is usually made by the person raising the point of order. All appeals require a second, are debatable and are subject to a majority vote of the membership. If they vote for the appeal, the chairman's decision is reversed. If they vote against the appeal, the chairman's decision is upheld. In the event of a tie vote, the chairman is sustained. If the chairman is a member of the organization, he has the right to vote and may make the tie.

Discussions on some appeals are not customary, such as questions of indecorum, violation of rules of speaking, or order of business.

Sometimes the chairman is in doubt on a point of order. When he is, he may defer to someone present for advice, or ask the members to discuss and vote on the point of order. This is the only time that a point of order is debatable. Their vote determines the chairman's decision.

Motion to adjourn: This motion is in order at any time, but should be employed with discretion. Obviously, it should not interfere with the organization's efforts to get business done. This motion requires a second, is not debatable, cannot be amended, and must be voted on immediately. A majority vote is necessary. Any motion for adjournment that refers to a specific time or place for the next meeting is subject to debate and amendment.

We have tried to project the reader into actual participation in the forming of an organization and the conduct of a meeting, and we have given more attention to the processes than to the discussion of technical rules. In following this course, we may have omitted some matters that do not occur at every meeting, but that do happen occasionally and should be understood.

Removal of officers: This is sometimes an unhappy necessity. Misconduct of an officer may involve neglect of duties, abuse of privileges, or incompetence. The removal of an officer is accomplished by preferring charges which should be of a serious nature and supported by proof. The charges may be considered at a general meeting or referred to a committee to investigate and to recommend a course of action. A two-thirds vote of the members present is required to remove an officer. A motion to remove an officer is debatable.

Expulsion of members: If a member violates his obligations and duties or is involved in an act that may bring disrepute to the organization, he is subject to charges and a hearing before a committee or the membership and can be expelled by a two-thirds vote. This action is debatable. Obviously, such actions should not be undertaken unless the charges are serious and

supported by substantial proof. It would be deplorable if the exercise of such a drastic action were based on a frivolous issue or personal bias. Sometimes the behavior of a member at a meeting requires disciplinary action in the form of a motion for immediate expulsion. This is not debatable and requires a two-thirds vote.

Question of privilege: A member may interrupt a meeting at any time to raise a question involving the comfort or convenience of the membership. It may concern such matters as the physical condition of the meeting hall, the seating of the members, the conduct of persons present, or the ability to hear speakers. This request requires no second, is not debatable, cannot be amended and is decided by the chair.

Suspension of the rules: The object of a proposal to suspend the rules is to permit a meeting to do something that is ordinarily prohibited by the rules of parliamentary procedure or by the adopted order of business. The suspension of rules is generally employed to deal with an emergency or special condition, such as permitting a guest speaker to start earlier than scheduled or allowing for the interruption of the regular order of business by a visiting committee. There are other circumstances under which the suspension of rules is permitted, but these cases are too complicated to be treated here. This motion cannot interrupt a speaker, requires a second, cannot be debated or amended, and requires a two-thirds vote.

We have endeavored to outline some of the basic rules for the benefit of the many people who want some simple knowledge of how to form an organization, how to conduct a meeting, or how to participate in one; also to help spectators at a convention understand what is going on. Beyond this, we refer you to the authorities on parliamentary procedure.

However important rules are for guidance in most human activities, there is no doubt that much is accomplished through informal discussion and action, and we do not hesitate to urge small friendly groups to do their business with as little formality and as few restrictions as possible. If this does not always work, we hope our book is there to serve you.

CROSSWORD PUZZLE GUIDE



Since many persons who can read and write occasionally or frequently indulge in the indoor pastime of working crossword puzzles, this section is offered as a handy help to solvers who may be stumped for a two-letter word meaning "three-toed sloth" or a three-letter word meaning "native of Mindanao."

We have those two words here, and plenty more. We have the Greek, Roman, Norse and Egyptian deities of myth and legend. And we have those "Greek letters" and "months of the Jewish year" so often needed to fill out little gaps.

The reader is warned that in mythology there are many confusing and even conflicting accounts of the identities and adventures of the various gods, goddesses and lesser figures. There is also considerable variation in the spelling of names, places and things. For instance, you may spell it ICON, IKON or EIKON, and similar options are plentiful all along the crossword line. If the reader will keep further possible variations in mind, it may help at a critical point.

Various other sections of our book will be found of use to the crossword puzzler—especially the section of world geography and statistics. See Geography in the index.

First Aid to Crossword Puzzlers

(We cannot, of course, begin to list all the odd words you will meet with in your daily and Sunday crossword puzzles, for such words run into many thousands. But we have tried to include those which turn up most frequently, as well as many others which should be of help to you when you are unable to go any further.)

Also, we do not guarantee that the definitions in your puzzle will be exactly the same as ours, although we have checked every word with a standard dictionary and have followed its definition.

In nearly every case, we have used as the key word the principal noun of the definition, rather than any adjective, adjective phrase, or noun used as an adjective. And, to simplify your searching, we have grouped the words according to the number of spaces you have to fill.)

Words of Two Letters

Ambar, DA	From the (French), DU	Month: Jewish, AB
And (French, Latin), ET	God: Babylonian, EA, ZU	Mouth, OS
Article (Arabic), AL	Egyptian sun, RA	Mulberry: Indian, AL
(French), LA, LE, UN	Hindu unknown, KA	Native: Burmese, WA
(Spanish), EL, LA, UN	Semitic, EL	Note: Of Scale, DO, FA, MI,
At the (French), AU	Goddess: Babylonian, AI	LA, RE, TI
(Spanish), AL	Greek earth, GE	Of (French, Latin, Spanish),
Behold, LO	Gold (heraldry), OR	DE
Bird: Hawaiian, OO	Gulf: Arctic, OB	Of the (French), DU
Birthplace: Abraham's, UR	Heart (Egy. relig.) AB	One (Scotch), AE
Bone, OS	Indian: South American,	Pagoda: Chinese, TA
Buddha, FO	GE	Plant: East Indian fiber, DA
Butterfly: Peacock, IO	King: Of Bashan, OG	Ridge: Sandy, AS, OS
Champagne, AY	Language: Artificial, RO	River: Russian, OB
Chaos, NU	Assamese, AO	Sloth: Three-toed, AI
Chief: Burmese, BO	Lava: Hawaiian, AA	Soul (Egy. relig.), BA
Coin: Roman, AS	Letter: Greek, MU, NU, PI,	Sound: Hindu mystic, OM
Siamese, AT	XI	Suffix: Comparative, ER
Concerning, RE	Hebrew, HE, PE	The. See Article
Dialect: Chinese, WU	Lily: Palm, TI	To the: French, AU
Double (Egy. relig.), KA	Measure: Annamese, LY	Spanish, AL
Drama: Japanese, OO	Chinese, HO, HU, KO, LI,	Tree: Buddhist sacred, BO
Egg (comb. form), NO	MU, PU, TO, TU	Tribe: Assamese, AO
Esker, OS	Japanese, GO, JO, MO, RI,	Type: Jumbled, PI
Eye (Scotch), EE	SE, TO	Weight: Annamese, TA
Factor: Amplification, MU	Metric land, AR	Chinese, LI
Fifty (Greek), NU	Netherlands, EL	Danish, ES
Fish: Carplike, ID	Portuguese, PE	Japanese, MO
Force, OD	Siamese, WA	Roman, AS
Forty (Greek), MU	Swedish, AM	Whirlwind: Faeroe Is., OE
From (French, Latin, Span-	Type, EM, EN	Yes (German), JA
ish), DE	Monk: Buddhist, BO	(Italian, Spanish), SI
(Latin prefix), AB		(Russian), DA

Words of Three Letters

- Adherent, IST
 Again, BIS
 Age, ERA
 Antelope: African, GNU, KOB
 Apricot: Japanese, UME
 Article (German), DAS, DEM, DEN, DER, DES, DIE, EIN
 (French), LES, UNE
 (Spanish), LAS, LOS, UNA
 Banana: Polynesian, FEI
 Barge, HOY
 Bass: African, IYO
 Beak, NEB, NIB
 Beard: Grain, AWN
 Beetle: June, DOR
 Being, ENS
 Berry: Hawthorn, HAW
 Beverage: Hawaiian, AVA
 Bird: Australian, EMU
 Crowlike, JAY
 Extinct, MOA
 Fabulous, ROC
 Frigate, IWA
 Parson, POE, TUE, TUI
 Sea, AUK
 Blackbird, ANI, ANO
 Born, NEE
 Bronze: Roman, AES
 Bugle: Yellow, IVA
 By way of, VIA
 Canton: Swiss, URI
 Cap: Turkish, FEZ
 Catnip, NEP
 Character: In "Faerie Queen," UNA
 Coin: Afghan, PUL
 Albanian, LEK
 British Guiana, BIT
 Bulgarian, LEV, LEW
 French, ECU, SOU
 Indian, PIE
 Japanese, SEN, YEN
 Korean, WON
 Lithuanian, LIT
 Macao, Timor, AVO
 Palestinian, MIL
 Persian, PUL
 Peruvian, SOL
 Rumanian, BAN, LEU, LEY
 Scandinavian, ORE
 Siamese, ATT
 See also Money of account
 Collection: Facts, ANA
 Commune: Belgian, ANS, ATH
 Netherlands, EDE, EPE
 Community: Russian, MIR
 Constellation: Southern, ARA
 Contraction: Poetic, EEN, EER, OER
 Covering: Apex of roof, EPI
 Crab: Fiddler, UCA
 Crag: Rocky, TOR
 Cry: Crow, rook, raven, CAW
 Cup: Wine, AMA
 Cymbal: Oriental, TAL, ZEL
 Disease: Silkworm, UJI
 Division: Danish territorial, AMT
 Geologic, EON
 Doctrine, ISM
 Dowry, DOT
 Dry (French), SEC
 Dynasty: Chinese, CHI, HAN, SUI, WEI, YIN
 Eagle: Sea, ERN
 Earth (comb. form), GEO
 Egg: Louse, NIT
 Eggs: Fish, ROE
 Emmet, ANT
 Enzyme, ASE
 Equal (comb. form), ISO
 Extension: building, ELL
 Far (comb. form), TEL
 Farewell, AVE
 Fiber: Palm, TAL
 Finial, EPI
 Fish: Carplike, IDE
 Pike-like, GAR
 Flatfish, DAB
 Fleur-de-lis, LIS, LYS
 Food: Hawaiian, POI
 Formerly, NEE
 Friend (French), AMI
 Game: Card, LOO
 Garment: Camel-hair, ABA
 Gateway, DAR
 Gazelle: Tibetan, GOA
 Genus: Ducks, AIX
 Grasses, POA
 Grasses (maize), ZEA
 Herbs or shrubs, IVA
 Lizards, UTA
 Rodents (incl. house mice), MUS
 Ruminants (incl. cattle), BOS
 Swine, SUS
 Gibbon: Malay, LAR
 God: Assyrian, SIN
 Babylonian, ABU, ANU, BEL, HEA, SIN, UTU
 Irish sea, LER
 Phrygian, MEN
 Polynesian, ORO
 Goddess: Babylonian, AYA
 Etruscan, UNI
 Hindu, SRI, UMA, VAC
 Teutonic, RAN
 Governor: Algerian, DIY
 Turkish, BEY
 Grampus, ORC
 Grape, UVA
 Grass: Meadow, POA
 Gypsy, ROM
 Hail, AVE
 Hare: Female, DOE
 Hawthorn, HAW
 Hay: Spread for drying, TED
 Herb: Japanese, UDO
 Perennial, PIA
 Used for blue dye, WAD
 Herd: Whales, GAM, POD
 Hero: Spanish, CID
 High (music), ALT
 Honey (pharm.), MEL
 Humorist: American, ADE
 I (Latin), EGO
 I love (Latin), AMO
 Indian: Algonquian, FOX, SAC, WEA
 Chimakuan, HOH
 Keresan, SIA
 Mayan, MAM
 Shoshonean, UTE
 Siouan, KAW, OTO
 South American, ITE, ONA, URO, URU, YAO
 Tierra del Fuego, ONA
 Wakashan, AHT
 Ingot, PIG
 Inlet: Narrow, RIA
 Island: Cyclades, IOS
 Dodecanese, COS, KOS (French), ILE
 River, AIT
 Jackdaw, DAW
 John (Gaelic), IAN
 Keelbill, ANI, ANO
 Kiln, OST
 King: British legendary, LUD
 Kobold, NIS
 Lace: To make, TAT
 Lamprey, EEL
 Language: Artificial, IDO
 Bantu, ILA
 Siamese, LAO, TAI
 Leaf: Palm, OLA, OLE
 Leaving, ORT
 Left: Cause to turn, HAW
 Letter: Greek, CHI, ETA, PHI, PSI, RHO, TAU
 Hebrew, MEM, NUN, SIN, TAV, VAU
 Lettuce, COS
 Life (comb. form), BIO
 Lily: Palm, TOI
 Lizard, EFT
 Louse: Young, NIT
 Love (Anglo-Irish), GRA
 Lute: Oriental, TAR
 Macaw: Brazilian, ARA
 Marble, TAW
 Match: Shooting (French), TIR
 Meadow, LEA
 Measure: Abyssinian, TAT
 Algerian, PIK
 Annamese, GON, MAU, NGU, QUO, SAO, TAO, TAT
 Arabian, DEN, SAA

Belgian, VAT
 Bulgarian, OKA, OKE
 Chinese, FEN, TOU, YIN
 Cloth, ELL
 Cyprus, OKA, OKE, PIK
 Czech, LAN, SAH
 Danish, FOD, MIL, POT
 Dominican Republic, ONA
 Dutch, old, AAM
 East Indian, KIT
 Egyptian, APT, HEN, PIK,
 ROB
 Electric, MHO, OHM
 Energy, ERG
 English, PIN
 Estonian, TUN
 French, POT
 German, AAM
 Greek, PIK
 Hebrew, CAB, HIN, KOR,
 LOG
 Hungarian, AKO
 Icelandic, FET
 Indian, GAZ, GUZ, JOW,
 KOS
 Japanese, BOO, CHO,
 KEN, RIN, SHO, SUN,
 TAN
 Malabar, ADY
 Metric land, ARE
 Netherlands, KAN, KOP,
 MUD, VAT, ZAK
 Norwegian, FOT, POT
 Persian, GAZ, GUZ, MOU,
 ZAR, ZER
 Polish, CAL
 Rangoon, DHA, LAN
 Roman, PES, URN
 Russian, FUT, LOF
 Scotch, COP
 Siamese, KEN, NIU, RAI,
 SAT, SEN, SOK, WAH,
 YOT
 Somaliland, TOP
 Spanish, PIE
 Straits Settlements, PAU,
 TUN
 Swedish, ALN, FOT, MIL,
 REF, TUM
 Swiss, POT
 Tunisian, SAA
 Turkish, OKA, OKE, PIK
 Wire, MIL
 Württemberg, IMI
 Yarn, LEA
 Yugoslavian, OKA, RIF
 Milk, LAC
 Milkfish, AWA
 Moccasin, PAC
 Money: Yap stone, FEI
 Money of Account: Anglo-
 Saxon, ORA, ORE
 French, SOU
 Indian, LAC
 Japanese, RIN
 Oman, GAJ
 Virgin Islands, BIT
 See also Coin

Monkey: Capuchin, SAI
 Morsel, ORT
 Mother: Peer Gynt's, ASE
 Mountain: Asia Minor, IDA
 Mulberry: Indian, AAL,
 ACH, AWL
 Muttonbird: New Zealand,
 OII
 Nahoor, SNA
 Native: Mindanao, ATA
 Neckpiece, BOA
 Newt, EFT
 No (Scotch), NAE
 Note: Guido's highest, ELA
 Of scale, SOL
 Nursemaid: Oriental, AMA,
 IYA
 Ocher: Yellow, SIL
 One (Scotch), YIN
 Ornament: Pagoda, TEE
 Oven: Polynesian, UMU
 Ox: Tibetan, YAK
 Pagoda: Chinese, TAA
 Parrot: Hawk, HIA
 New Zealand, KEA
 Part: Footlike, PES
 Particle: Electrified, ION
 Pasha, DEY
 Pass: Mountain, COL
 Paste: Rice, AME
 Pea: Indian split, DAL
 Peasant: Philippine, TAO
 Penpoint, NEB, NIB
 Piece out, EKE
 Pigeon, NUN
 Pine: Textile screw, ARA
 Pistol (slang), GAT
 Pit: Baking, IMU
 Plant: Pepper, AVA
 Play: By Capek, RUR
 Poem: Old French, DIT
 Porgy: Japanese, TAI
 Priest: Biblical high, ELI
 Prince: Ethiopian, RAS
 Pseudonym: Dickens', BOZ
 Queen: Fairy, MAB
 Quince: Bengal, BEL
 Record: Ship's, LOG
 Refuse: Flax (Scotch), PAB,
 POB
 Resin, LAC
 Resort, SPA
 Revolver (slang), GAT
 Right: Cause to turn, GEE
 River: Scotch or English,
 DEE (Spanish), RIO
 Swiss, AAR
 Room: Harem, ODA
 Rootstock: Fern, ROI
 Rose (Persian), GUL
 Ruff: Female, REE
 Rule: Indian, RAJ
 Sailor, GOB, TAR
 Saint: Female (abbr.), STE
 Mohammedan, PIR
 Salt, SAL
 Sash: Japanese, OBI
 Scrap, ORT

Seed: Poppy, MAW
 Small, PIP
 Self, EGO
 Serpent: Vedic sky, AHI
 Sesame, TIL
 Sheep: Female, EWE
 Indian, SHA
 Male, RAM
 Sheepfold (Scotch), REE
 Shelter, LEE
 Shield, ECU
 Shooting match (French),
 TIR
 Shrew: European, ERD
 Shrub: Evergreen, YEW
 Silkworm, ERI
 Snake, ASP, BOA
 Soak, RET
 Son-in-law: Mohammed's,
 ALI
 Sorrel: Wood, OCA
 Spade: Long, narrow, LOY
 Spirit: Malignant, KER
 Spot: Playing-card, PIP
 Spread for drying, TED
 Spring: Mineral, SPA
 Sprite: Water, NIX
 Statesman: Japanese, ITO
 Stern: Toward, AFT
 Stomach: Bird's, MAW
 Street (French), RUE
 Summer (French), ETE
 Sun, SOL
 Swamp, BOG, FEN
 Swan: Male, COB
 Tea: Chinese, CHA
 Temple: Shinto, SHA
 The. See Article
 Thing (law), RES
 Title: Etruscan, LAR
 Monk's, FRA
 Portuguese, DOM
 Spanish, DON
 Turkish, AGA, BEY
 Tool: Cutting, ADZ, AXE
 Mining, GAD
 Piercing, AWL
 Tree: Candlenut, AMA
 Central American, EBO
 East Indian, SAJ, SAL
 Evergreen, YEW
 Hawaiian, KOA, KOU
 Indian, BEL, DAR
 Linden, LIN
 New Zealand, AKE
 Philippine, DAO, TUA,
 TUI
 Rubber, ULE
 South American, APA
 Tribe: New Zealand, ATI
 Turmeric, REA
 Twice, BIS
 Twin: Siamese, ENG
 Uncle (dialect), EAM, EME
 Veil: Chalice, AER, AIR
 Vessel: Wine, AMA
 Vestment: Ecclesiastical,
 ALB

Vetch: Bitter, ERS
 Victorious, AKU
 Vine: New Zealand, AKA
 Philippine, IYO
 Wallaba, APA
 Wapiti, ELK
 Water (French), EAU
 Waterfall, LIN
 Watering place: Prussian,
 EMS
 Weave: Designating plain,
 UNI
 Weight: Annamese, CAN
 Bulgarian, OKA, OKE
 Burmese, MOO, VIS
 Chinese, FEN, HAO, KIN,
 SSU, TAN, YIN

Cyprus, OKA, OKE
 Danish, LOD, ORT, VOG
 East Indian, TJI
 Egyptian, KAT, OKA, OKE
 English, for wool, TOD
 German, LOT
 Greek, MNA, OKA, OKE
 Indian, SER
 Japanese, FUN, KIN, RIN,
 SHI
 Korean, KON
 Malacca, KIP
 Mongolian, LAN
 Netherlands, ONS
 Norwegian, LOD
 Polish, LUT
 Rangoon, PAI
 Roman, BES

Russian, LOT
 Siamese, BAT, HAP, PAI
 Swedish, ASS, ORT
 Turkish, OKA, OKE
 Yugoslavian, OKA, OKE
 Whales: Herd, GAM, POD
 Wildebeest, GNU
 Wing, ALA
 Witticism, MOT
 Wolframite, CAL
 Worm: African, LOA
 Wreath: Hawaiian, LEI
 Yale, ELI
 Yam: Hawaiian, HOI
 Yes (French), OUI
 Young: Bring forth, EAN
 Z (letter), ZED

Words of Four Letters

Aborigine: Borneo, DYAK
 Agave, ALOE
 Animal: Footless, APOD
 Ant: White, ANAI, ANAY
 Antelope: African, ASSE,
 BISA, GUIB, KOBA,
 KUDU, ORYX, POKU,
 PUKU, TOPI, TORA
 Apoplexy: Plant, ESCA
 Apple, POME
 Apricot, ANSU
 Ardor, ELAN
 Armadillo, APAR, PEBA,
 PEVA, TATU
 Ascetic: Mohammedan,
 SUFU
 Association: Chinese, TONG
 Astronomer: Persian, OMAR
 Avatar: Of Vishnu, RAMA
 Axillary, ALAR
 Band: Horizontal (herald-
 dry), FESS
 Barracuda, SPET
 Bark: Mulberry, TAPA
 Base: Column, DADO
 Bearing (heraldry), ORLE
 Beer: Russian, KVAS
 Beige, ECRU
 Being, ESSE
 Beverage: Japanese rice,
 SAKE
 Bird: Asian, MINA, MYNA
 Egyptian sacred, IBIS
 Extinct, DODO, MAMO
 Flightless, KIWI
 Gull-like, TERN
 Hawaiian, IIWI, MAMO
 Parson, KOKO
 Unfedged, EYAS
 Birds: As class, AVES
 Black, EBON
 (French), NOIR
 Blackbird: European, MERL
 Boat: Flat-bottomed, DORY
 Bone: Forearm, ULNA
 Bones, OSSA
 Box: Japanese, INRO
 Bravo (rare), EUGE

Buffalo: Indian wild, ARNA
 Bull (Spanish), TORO
 Burden, ONUS
 Cabbage: Sliced, SLAW
 Caliph: Mohammedan,
 OMAR
 Canoe: Malay, PRAU, PROA
 Cap: Military, KEPI
 Cape, NESS
 Capital: Ancient Irish,
 TARA
 Case: Article, ETUI
 Cat: Wild, BALU, EYRA
 Chalcedony, SARD
 Chamber: Indian ceremo-
 nial, KIVA
 Channel: Brain, ITER
 Cheese: Dutch, EDAM
 Chest: Sepulchral stone,
 CIST
 Chieftain: Arab, EMIR
 Church: Part of, APSE,
 NAVE
 (Scotch), KIRK
 Claim (law), LIEN
 Cluster: Flower, CYME
 Coin: Chinese, TAEI, YUAN
 German, MARK
 Indian, ANNA
 Iranian, RIAL
 Italian, LIRA
 Moroccan, OKIA
 Siamese, BAHT
 South American, PESO
 Spanish, DURO, PESO
 Turkish, PARA
 Commune: Belgian, AATH
 Composition: Musical,
 OPUS
 Compound: Chemical, DIOL
 Constellation: Southern,
 PAVO
 Council: Russian, DUMA
 Counsel, REDE
 Covering: Seed, ARIL
 Cross: Egyptian, ANKH
 Cry: Bacchanalian, EVOE
 Cup (Scotch), TASS

Cupbearer, SAKI
 Dagger, DIRK
 Malay, KRIS
 Dam: River, WEIR
 Dash, ELAN
 Date: Roman, IDES
 Dawn: Pertaining to, EOAN
 Dean: English, INGE
 Decay: In fruit, BLET
 Deer: Sambar, MAHA
 Disease: Skin, ACNE
 Disk: Solar, ATEN
 Dog: Hunting, ALAN
 Drink: Hindu intoxicating,
 SOMA
 Duck, SMEE, SMEW, TEAL
 Dynasty: Chinese, CHEN,
 CHIN, CHOU, CHOW,
 HSIA, MING, SUNG,
 TANG, TSIN
 Mongol, YUAN
 Eagle: Biblical, GIER
 Sea, ERNE
 Egyptian: Christian, COPT
 Ear: Pertaining to, OTIC
 Entrance: Mine, ADIT
 Esau, EDOM
 Escutcheon: Voided, ORLE
 Eskers, OSAR
 Evergreen: New Zealand,
 TAWA
 Fairy: Persian, PERI
 Family: Italian, ESTE
 Far (comb. form), TELE
 Farewell, VALE
 Father (French), PERE
 Fennel: Philippine, ANIS
 Fever: Malarial, AGUE
 Fiber: East Indian, JUTE
 Firn, NEVE
 Fish: Carplike, DACE
 Hawaiian, ULUA
 Herringlike, SHAD
 Mackerellike, CERO
 Marine, HAKE
 Sea, LING, MERO, OPAH
 Spiny-finned, GOBY
 Food: Tropical, TARO

- Foot: Metric, IAMB
Formerly, ERST
Founder: Of Carthage,
DIDO
France: Southern, MIDI
Furze, ULEX
Gaelic, ERSE
Gaiter, SPAT
Game: Card, FARO, SKAT
Garlic: European wild,
MOLY
Garment: Hindu, SARI
Roman, TOGA
Gazelle, CORA
Gem, JADE, ONYX, OPAL,
RUBY
Genus: Amphibians (incl.
frogs), RANA
Amphibians (incl. tree
toads), HYLAE
Antelopes, ORYX
Auks, ALCA, URIA
Bees, APIS
Birds (American os-
triches), RHEA
Birds (cranes), GRUS
Birds (magpies), PICA
Birds (peacocks), PAVO
Cetaceans, INIA
Ducks (incl. mallards),
ANAS
Fishes (burbots), LOTA
Fishes (incl. bowfins),
AMIA
Genus: Geese (snow geese),
CHEN
Gulls, XEMA
Herbs, ARUM, GEUM
Insects (water scorpions),
NEPA
Lilies, ALOE
Mammals (mankind),
HOMO
Orchids, DISA
Owls, ASIO, BUBO, OTUS
Palms, NIPA
Sea birds, SULA
Sheep, OVIS
Shrubs, Eurasian, ULEX
Shrubs (hollies), ILEX
Shrubs (incl. Virginia
Willow), ITEA
Shrubs, tropical, EVEA
Snakes (sand snakes),
ERYX
Swans, OLOR
Trees, chocolate, COLA
Trees (ebony family),
MABA
Trees (incl. maples),
ACER
Trees (Olives), OLEA
Trees, tropical, EVEA
Turtles, EMYS
Goat: Wild, IBEX, KRAS,
TAHR, TAIR, THAR
God: Assyrian, ASUR
Babylonian, ADAD, ADDU,
ENKI, ENZU, IRRRA,
NABU, NEBO, UTUG
Celtic, LLEU, LLEW
Hindu, AGNI, CIVAE
DEVA, DEWA, KAMA,
RAMA, SIVA, VAYU
Phrygian, ATYS
Semitic, BAAL
Teutonic, HLER
Goddess: Babylonian, ERUA,
GULA
Hawaiian, PELE
Hindu, DEVI, KALI, SHRI,
VACH
Gooseberry: Hawaiian,
POHA
Gourd, PEPO
Grafted (heraldry), ENTE
Grandfather (obsolete),
AIEL
Grandparents: Pertaining
to, AVAL
Grass: Hawaiian, HILO
Gray (French), GRIS
Green (heraldry), VERT
Groom: Indian, SYCE
Half (prefix), DEMI, HEMI,
SEMI
Hamlet, DORP
Hammer-head: Part of,
PEEN
Handle, ANSA
Harp: Japanese, KOTO
Hartebeest, ASSE, TORA
Hautboy, OBOE
Hawk: Taken from nest
(falconry), EYAS
Hearing (law), OYER
Heater: For liquids, ETNA
Herb: Aromatic, ANET,
DILL
Fabulous, MOLY
Perennial, GEUM, SEGO
Pot, WORT
Used for blue dye, WADE,
WOAD
Hill: Flat-topped, MESA
Sand, DENE, DUNE
Hoarfrost, RIME
Hog: Immature female,
GILT
Holly, ILEX
House: Cow, BYRE
(Spanish), CASA
Ice: Floating, FLOE
Image, ICON, IKON
Incarnation: Of Vishnu,
RAMA
Indian: Algonquian, CREE,
SAUK
Central American, MAYA
Iroquoian, ERIE
Mexican, CORA
Peruvian, CANA, INCA,
MORO
Shoshonean, HOPI
Siouan, OTOE
Southwestern, HOPI,
PIMA, YUMA, ZUNI
Insect: Immature, PUPA
Instrument: Stringed,
LUTE, LYRE
Ireland, EIRE, ERIN
Jacket: English, ETON
Jail (British), GAOL
Jar, OLLA
Judge: Mohammedan, CADI
Juniper: European, CADE
Kiln, OAST, OVEN
King: British legendary,
LUDD, NUDD
Kiss, BUSS
Knife: Philippine, BOLO
Koran: Section of, SURAE
Laborer: Spanish American,
PEON
Lake: Mountain, TARN
(Scotch), LOCH
Lamp: Miner's, DAVY
Landing place: Indian,
GHAT
Language: Buddhist, PALI
Japanese, AINU
Latvian, LETT
Layer: Of iris, UVEA
Leaf: Palm, OLAY, OLLA
Legislature: Ukrainian,
RADA
Lemur, LORI
Leopard, PARD
Let it stand, STET
Letter: Greek, BETA, IOTA,
ZETA
Hebrew, AYIN, BETH,
CAPH, KOPH, RESH,
SHIN, TETH, YODH
Papal, BULL
Lily, ALOE
Literature: Hindu sacred,
VEDA
Lizard, GILA
Monitor, URAN
Loquat, BIWA
Magistrate: Genoese or Ve-
netian, DOGE
Man (Latin), HOMO
Mark: Omission, DELE
Marmoset: South American,
MICO
Meadow: Fertile, VEGA
Measure: Electric, VOLT,
WATT
Force, DYNE
Hebrew, OMER
Printing, PICA
Spanish or Portuguese,
VARA
Swiss land, IMMI
Medley, OLIO
Merganser, SMEW
Milk (French), LAIT
Molding, GULA
Curved, OGEE
Mongoose: Crab-eating,
URVA

Monk: Tibetan, LAMA
 Monkey: African, MONA,
 WAAG
 Ceylonese, MAHA
 Cochin-China, DOUC
 South American, SAKI,
 TITI
 Monkshood, ATIS
 Month: Jewish, ADAR,
 ELUL, IYAR
 Mother (French), MERE
 Mountain: Thessaly, OSSA
 Mouse: Meadow, VOLE
 Mythology: Norse, EDDA
 Nail (French), CLOU
 Native: Philippine, MORO
 Nest: Of pheasants, NIDE
 Network, RETE
 No (German), NEIN
 Noble: Mohammedan, AMIR
 Notice: Death, OBIT
 Novel: By Zola, NANA
 Nursemaid: Oriental
 AMAH, AYAH, EYAH
 Nut: Philippine, PILI
 Oak: Holm, ILEX
 Oil (comb. form), OLEO
 Ostrich: American, RHEA
 Oven, KILN, OAST
 Owl: Barn, LULU
 Ox: Celebes wild, ANOE
 Extinct wild, URUS
 Palm, ATAP, NIPA, SAGO
 Parliament, DIET
 Parrot: New Zealand, KAKA
 Pass: Indian mountain,
 GHAT
 Passage: Closing (music),
 CODA
 Peach: Clingstone, PAVY
 Peasant: Indian, RYOT
 Old English, CARL
 Pepper: Australasian, KAVA
 Perfume, ATAR
 Persia, IRAN
 Person: Extraordinary,
 ONER
 Pickerel or pike, ESOX
 Pitcher, EWER
 Plant: Aromatic, NARD
 Century, ALOE
 Indigo, ANIL
 Pepper, KAVA
 Platform: Raised, DAIS
 Plum: Wild, SLOE
 Pods: Vegetable, OKRA,
 OKRO
 Poem: Epic, EPOS
 Poet: Persian, OMAR
 Roman, OVID
 Poison, BANE
 Arrow, INEE
 Porkfish, SISI
 Portico: Greek, STOA
 Premium, AGIO
 Priest: Mohammedan,
 IMAM
 Prima donna, DIVA

Prong: Fork, TINE
 Pseudonym: Lamb's, ELIA
 Queen: Carthaginian, DIDO
 Hindu, RANI
 Rabbit, CONY
 Race: Of Japan, AINU
 Rail: Ducklike, COOT
 North American, SORA
 Redshank, CLEE
 Refuse: After pressing,
 MARC
 Regiment: Turkish, ALAI
 Reliquary, ARCA
 Resort: Italian, LIDO
 Ridges: Sandy, ASAR, OSAR
 River: German, ELBE,
 ODER
 Italian, ADDA
 Siberian, LENA
 Road: Roman, ITER
 Rockfish: California, RENA
 Rodent: Mouselike, VOLE
 South American, PACA
 Rootstock, TARO
 Salamander, NEWT
 Salmon: Silver, COHO
 Young, PARR
 Same (Greek), HOMO
 (Latin), IDEM
 Sauce: Fish, ALEC
 School: English, ETON
 Seaweed, AGAR, ALGA,
 KELP
 Secular, LAIC
 Sediment, SILT
 Seed: Dill, ANET
 Of vetch, TARE
 Serf, ILOT
 Sesame, TEEL
 Settlement: Eskimo, ETAH
 Shark: Atlantic, GATA
 European, TOPE
 Sheep: Wild, UDAD
 Sheltered, ALEE
 Shield, EGIS
 Ship: Jason's, ARGO
 Left side of, PORT
 Two-masted, BRIG
 Shrine: Buddhist, TOPE
 Shrub: New Zealand, TUTU
 Sign: Magic, RUNE
 Silkworm, ERIA
 Skin: Beaver, PLEW
 Skink: Egyptian, ADDA
 Slave, ESNE
 Sloth: Two-toed, UNAU
 Smooth, LENE
 Snow: Glacial, NEVE
 Soapstone, TALC
 Society: African secret,
 EGBO, PORO
 Son: Of Seth, ENOS
 Song (German), LIED
 Unaccompanied, GLEE
 Sound: Lung, RALE
 Sour, ACID
 Sow: Young, GILT
 Spike: Brad-shaped, BROB

Spirit: Buddhist evil, MAR
 Stake: Poker, ANTE
 Star: Temporary, NOVA
 Starch: East Indian, SAGO
 Stone: Precious, OPAL
 Strap: Bridle, REIN
 Strewn (heraldry), SEME
 Sweetshop, ATEs, ATTA
 Sword: Fencing, EPEE, FOI
 Tambourine: African, TAA
 Tapir: Brazilian, ANTA
 Tax, CESS
 Tea: South American,
 MATE
 Therefore (Latin), ERGO
 Thing: Extraordinary,
 ONER
 Three (dice, cards, etc.),
 TREY
 Thrush: Hawaiian, OMAO
 Tide, NEAP
 Tipster: Racing, TOUT
 Tissue, TELA
 Title: Etruscan, LARS
 Hindu, BABU
 Indian, RAJA
 Mohammedan, EMIR,
 IMAM
 Persian, BABA
 Spanish, DONA
 Turkish, AGHA, BABA
 Toad: Largest known, AGU
 Tree, HYLEA
 Tool: Cutting, ADZE
 Track: Deer, SLOT
 Tract: Sandy, DENE
 Tree: Apple, SORB
 Central American, EBOE
 East Indian, TEAK
 Eucalyptus, YATE
 Guiana and Trinidad,
 MORA
 Javanese, UPAS
 Linden, LIME, LINN,
 TEIL, TILL
 Sandarac, ARAR
 Sassafras, AGUE
 Tamarisk salt, ATLE
 Tribe: Moro, SULU
 Trout, CHAR
 Urchin: Street, ARAB
 Vessel: Arab, DHOW
 Vestment: Ecclesiastical,
 COPE
 Vetch, TARE
 Vine: East Indian, SOMA
 Violinist: Famous, AUER
 Vortex, EDDY
 Wampum, PEAG
 Wapiti, STAG
 Waste: Allowance for, TRE
 Watchman: Indian, MINA
 Water (Spanish), AGUA
 Waterfall, LINN
 Wavy (heraldry), ONDE,
 UNDE
 Wax, CERE
 Chinese, PELA

Weed: Biblical, TARE
Weight: Ancient, MINA
Danish (pl.), ESER
East Asian, TAEI
Greek, MINA
Siamese, BAHT
Well done (rare), EUGE
Whale, CETE

Killer, ORCA
White, HUSE, HUSO
Whirlpool, EDDY
Wife: Of Geraint, ENID
Willow: Virginia, ITEA
Wine, PORT
Winged, ALAR
(Heraldry), AILE

Wings, ALAE
Withered, SERE
Without (French), SANS
Wool: To comb, CARD
Work, OPUS
Wrong: Civil, TORT
Young: Bring forth, YEAN

Words of Five Letters

Abode of dead: Babylonian, ARALU
Aborigine: Borneo, DAYAK
Aftersong, EPODE
Aloe, AGAVE
Animal: Footless, APODE
Ant, EMMET
Antelope: African, ADDAX, BEISA,
CAAMA, ELAND, GUIBA, ORIBI,
TIANG
Goat, GORAL, SEROW
Indian, SASIN
Siberian, SAIGA
Arch: Pointed, OGIVE
Armadillo, APARA, POYOU, TATOU
Arrowroot, ARARU
Artery: Trunk, AORTA
Association: Russian, ARTEL
Secret, CABAL
Author: English, READE
Automaton, GOLEM, ROBOT
Award: Motion-picture, OSCAR
Basket: Fishing, CREEL
Beer: Russian, KVASS
Bible: Mohammedan, KORAN
Bird: Asian, MINAH, MYNAH
Indian, SHAMA
Larklike, PIPIT
Loonlike, GREBE
Oscine, VIREO
South American, AGAMI
Swimming, GREBE
Black: (French), NOIRE
(Heraldry), SABLE
Blackbird: European, MERLE, OUSEL,
OUZEL
Block: Glacial, SERAC
Blue (heraldry), AZURE
Boat: Eskimo, BIDAR, UMIK
Bobwhite, COLIN, QUAIL
Bone (comb. form), OSTEO
Leg, TIBIA
Thigh, FEMUR
Broom: Twig, BESOM
Brother (French), FRERE
Moses', AARON
Canoe: Eskimo, BIDAR, KAYAK
Cape: Papal, FANON, ORALE
Caravansary, SERAI
Card: Old playing, TAROT
Caterpillar: New Zealand, AWETO
Catkin, AMENT
Cavity: Stone, GOODE
Cephalopod, SQUID
Cetacean, WHALE
Chariot, ESSED
Cheek: Pertaining to, MALAR
Chieftain: Arab, EMEER
Child (Scotch), BAIRN

Cigar, CLARO
Coating: Seed, TESTA
Cockatoo: Palm, ARARA
Coin: Costa Rican, COLON
Danish, KRONE
Ecuadorian, SUCRE
English, GROAT, PENCE
French, FRANC
German, KRONE, TALER
Hungarian, PENGÓ
Icelandic, KRONA
Indian, RUPEE
Iraqi, DINAR
Norwegian, KRONE
Polish, ZLOTY
Russian, COPEC, KOPEK, RUBLE
Swedish, KRONA
Turkish, ASPIR
Yugoslav, DINAR
Collar: Papal, FANON, ORALE
Roman, RABAT
Commune: Italian, TREIA
Composition: Choral, MOTET
Compound: Chemical, ESTER
Conceal (law), ELOIN
Council: Ecclesiastical, SYNOD
Court: Anglo-Saxon, GEMOT
Inner, PATIO
Crest: Mountain, ARETE
Crown: Papal, TIARA
Cuttlefish, SEPIA
Date: Roman, NONES
Decree: Mohammedan, IRADE
Russian, UKASE
Deposit: Loam, LOESS
Desert: Gobi, SHAMO
Devilfish, MANTA
Disease: Cereals, ERGOT
Disk, PATEN
Dog: Wild, DHOLE, DINGO
Dormouse, LEROT
Drum, TABOR
Duck: Sea, EIDER
Dynasty: Chinese, CHING, LIANG, SHANG
Earthquake, SEISM
Eel, ELVER, MORAY
Ermine: European, STOAT
Ether: Crystalline, APIOL
Fabric: Velvetlike, PANNE
Fabulist, AESOP
Family: Italian, CENCI
Fiber: West Indian, SISAL
Fig: Smyrna, ELEME, ELEMI
Figure: Of speech, TROPE
Finch: European, SERIN
Fish: American small, KILLY
Flower: Garden, ASTER
Friend (Spanish), AMIGO

- Fruit: Tropical, MANGO
 Fungus: Rye, ERGOT
 Furze, GORSE
 Gateway, TORAN, TORII
 Gem, AGATE, BERYL, PEARL, TOPAZ
 Genus: Barnacles, LEPAS
 Bears, URSUS
 Birds (loons), GAVIA
 Birds (nuthatches), SITTA
 Cats, FELIS
 Dogs, CANIS
 Fishes (chiros), ELOPS
 Fishes (perch), PERCA
 Geese, ANSER
 Grasses, STIPA
 Grasses (incl. oats), AVENA
 Gulls, LARUS
 Hares, rabbits, LEPUS
 Hawks, BUTEO
 Herbs, old world, INULA
 Herbs, trailing or climbing, APIOS
 Herbs, tropical, TACCA, URENA
 Horses, EQUUS
 Insects (olive flies), DACUS
 Lice, plant, APHIS
 Lichens, USNEA
 Lizards, AGAMA
 Moles, TALPA
 Mollusks, OLIVA
 Monkeys, CEBUS
 Palms, ARECA
 Pigeons, GOURA
 Plants (amaryllis family), AGAVE
 Ruminants (goats), CAPRA
 Shrubs, Asiatic, SABIA
 Shrubs (heath), ERICA
 Shrubs (incl. raspberry), RUBUS
 Shrubs, tropical, IXORA, TREMA,
 URENA
 Ticks, ARGAS
 Trees (of elm family), TREMA, ULMUS
 Trees, tropical, IXORA, TREMA
 Goat: Bezoar, PASAN
 God: Assyrian, ASHIR, ASHUR, ASSUR
 Babylonian, DAGAN, SIRIS
 Gaelic, DAGDA
 Hindu, BHAGA, INDRA, SHIVA
 Japanese, EBISU
 Philistine, DAGON
 Phrygian, ATTIS
 Teutonic, AEGIR, GYMIR
 Welsh, DYLAN
 Goddess: Babylonian, ISTAR, NANAI
 Hindu, DURGA, GAURI, SHREE
 Group: Of six, HEXAD
 Grove: Sacred to Diana, NEMUS
 Growing out, ENATE
 Guitar: Hindu, SITAR
 Gull: PEWEE, PEWIT
 Hartebeest, CAAMA
 Headdress: Jewish or Persian, TIARA
 Liturgical, MITER, MITRE
 Heath, ERICA
 Herb: Grasslike marsh, SEDGE
 Heron, EGRET
 Hog: Young, SHOAT, SHOTE
 Image, EIKON
 Indian: Cariban, ARARA
 Iroquoian, HURON
 Mexican, AZTEC, OPATA, OTOMI
 Muskhogan, CREEK
 Siouan, OSAGE, TETON
 Spanish American, ARARA, CARIB
 Inflorescence: Racemose, AMENT
 Insect: Immature, LARVA
 Intrigue, CABAL
 Iris: Yellow, SEDGE
 Juniper, GORSE, RETEM
 Kidneys: Pertaining to, RENAL
 King: British legendary, LLUDD
 Kite: European, GLEDE
 Kobold, NISSE
 Land: Cultivated, ARADA, ARADO
 Landholder (Scotch), LAIRD, THANE
 Language: Dravidian, TAMIL
 Lariat, LASSO, REATA
 Laughing, Riant
 Lawgiver: Athenian, DRACO, SOLON
 Leaf: Calyx, SEPAL
 Fern, FROND
 Lemur, LORIS
 Letter: English, AITCH
 Greek, ALPHA, DELTA, GAMMA,
 KAPPA, OMEGA, SIGMA, THETA
 Hebrew, ALEPH, CHETH, GIMEL,
 SADHE, ZAYIN
 Lichen, USNEA
 Lighthouse, PHARE
 Lizard: Old World, AGAMA
 Loincloth, DHOTI
 Louse: Plant, APHID
 Macaw: Brazilian, ARARA
 Mahogany: Philippine, ALMON
 Mammal: Badgerlike, RATEL
 Civetlike, GENET
 Giraffelike, OKAPI
 Raccoonlike, COATI
 Man (French), HOMME
 Marble, AGATE
 Mark: Insertion, CARET
 Market place: Greek, AGORA
 Marsupial: Australian, KOALA
 Measure: Electric, FARAD, HENRY
 Energy, JOULE
 Metric, LITER, STERE
 Printing, AGATE
 Russian, VERST
 Mixture: Smelting, MATTE
 Mohicans: Last of, UNCAS
 Molding: Convex, OVOLO, TORUS
 Mole, TALPA
 Monkey: African, PATAS
 Capuchin, SAJOU
 Howling, ARABA
 Monkishood, ATEES
 Month: Jewish, NISAN, SIVAN, TEBET
 Museum (French), MUSEE
 Musketeer, ATHOS
 Native: Aleutian, ALEUT
 New Zealand, MAORI
 Neckpiece: Ecclesiastical, AMICE
 Nerve (comb. form), NEURO
 Nest: Eagle's or hawk's, AERIE
 Insect's, NIDUS
 Net: Fishing, SEINE
 Newsstand, KIOSK

- Nitrogen, AZOTE
 Noble: Mohammedan, AMEER
 Nodule: Stone, GEODE
 Nostrils, NARES
 Notched irregularly, EROSE
 Nymph: Mohammedan, HOURI
 Official: Roman, EDILE
 Oleoresin, ELEMI
 Opening: Mouthlike, STOMA
 Oration: Funeral, ELOGE
 Ostiole, STOMA
 Page: Left-hand, VERSO
 Right-hand, RECTO
 Palm, ARECA, BETEL
 Park: Colorado, ESTES
 Perfume, ATTAR
 Philosopher: Greek, PLATO
 Pillar: Stone, STELA, STELE
 Pinnacle: Glacial, SERAC
 Plain, LLANO
 Plant: Century, AGAVE
 Climbing, LIANA
 Dwarf, CUMIN
 East Asian perennial, RAMIE
 Medicinal, SENNA
 Mustard family, CRESS
 Plate: Communion, PATEN
 Poem: Lyric, EPODE
 Point: Lowest, NADIR
 Poplar, ABELE, ALAMO, ASPEN
 Porridge: Spanish American, ATOLE
 Post: Stair, NEWEL
 Priest: Mohammedan, IMAUM
 Protozoan, AMEBA
 Queen: (French), REINE
 Hindu, RANEE
 Rabbit, CONEY
 Rail, CRAKE
 Red (heraldry), GULES
 Religion: Moslem, ISLAM
 Resin, ELEMI
 Revoke (law), ADEEM
 Rich man, MIDAS, NABOB
 Ridge: Sandy, ESKAR, ESKER
 River: French, LOIRE, SEINE
 Rockfish: California, REINA
 Rootstock: Fragrant, ORRIS
 Ruff: Female, REEVE
 Sack: Pack, KYACK
 Salt: Ethereal, ESTER
 Saltpeter, NITER, NITRE
 Salutation: Eastern, SALAM
 Sandpiper: Old World, TEREK
 Scented, OLENT
 School: Fish, SHOAL
 French public, LYCEE
 Scriptures: Mohammedan, KORAN
 Seaweeds, ALGAE
 Seed: Aromatic, ANISE
 Seraglio, HAREM, SERAI
 Serf, HELOT
 Sheep: Wild, AUDAD
 Sheeplike, OVINE
 Shield, AEGIS
 Shoe: Wooden, SABOT
 Shoots: Pickled bamboo, ACHAR
 Shot: Billiard, CAROM, MASSE
 Shrine: Buddhist, STUPA
 Shrub: Burning bush, WAHOO
 Ornamental evergreen, TOYON
 Used in tanning, SUMAC
 Silk: Watered, MOIRE
 Sister (French), SOEUR
 (Latin), SOROR
 Six: Group of, HEXAD
 Skeleton: Marine, CORAL
 Slave, HELOT
 Snake, ABOMA, ADDER, COBRA, RACER
 Soldier: French, POILU
 Indian, SEPOY
 Sour, ACERB
 Spirit: Air, ARIEL
 Staff: Shepherd's, CROOK
 Starwort, ASTER
 Steel (German), STAHL
 Stockade: Russian, ETAPE
 Stop (nautical), AVAST
 Storehouse, ETAPE
 Subway: Parisian, METRO
 Tapestry, ARRAS
 Tea: Paraguayan, YERBA
 Temple: Hawaiian, HEIAU
 Terminal: Positive, ANODE
 Theater: Greek, ODEON, ODEUM
 Then (French), ALORS
 Thread: Surgical, SETON
 Thrush: Wilson's, VEERY
 Title: Hindu, BABOO
 Indian, RAJAH, SAHEB, SAHIB
 Mohammedan, EMEER, IMAUM
 Tree: Buddhist sacred, PIPAL
 East Indian cotton, SIMAL
 Hickory, PECAN
 Light-wooded, Balsa
 Malayan, TERAP
 Mediterranean, CAROB
 Mexican, ABETO
 Mexican pine, OCOTE
 New Zealand, MAIRE
 Philippine, ALMON
 Rain, SAMAN
 South American, UMBRA
 Tamarack, LARCH
 Tamarisk salt, ATLEE
 West Indian, ACANA
 Trout, CHARR
 Troy, ILION, LIUM
 Twin: Siamese, QHANG
 Vestment: Ecclesiastical, STOLE
 Violin: Famous, AMATI, STRAD
 Volcano: Mud, SALSE
 Wampum, PEAGE
 War cry: Greek, ALALA
 Wavy (heraldry), UNDEE
 Weight: Jewish, GERAH
 Wen, TALPA
 Wheat, SPELT
 Wheel: Persian water, NORIA
 Whitefish, CISCO
 Willow, OSIER
 Window: Bay, ORIEL
 Wine, MEDOC, RHINE, TINTA, TOKAY
 Winged, ALATE
 Woman (French), FEMME
 Year: Excess of solar over lunar, EPACT
 Zoroastrian, PARSI

Words of Six or More Letters

- Agave, MAGUEY
 Alkaloid: Crystalline, ESERIN, ESERINE
 Alligator, CAYMAN
 Amphibole, EDENITE, URALITE
 Ant: White, TERMITE
 Antelope: African, DIKDIK, DUIKER,
 GEMSBOK, IMPALA, KOODOO
 European, CHAMOIS
 Indian, NILGAI, NILGAU, NILGHAI,
 NILGHAU
 Ape: Asian or East Indian, GIBBON
 Appendage: Leaf, STIPEL, STIPULE
 Armadillo, PELUDO, TATOUAY
 Arrowroot, ARARAO
 Ascetic: Jewish, ESSENE
 Ass: Asian wild, ONAGER
 Avatar: Of Vishnu, KRISHNA
 Babylonian, ELAMITE
 Badge: Shoulder, EPAULET
 Baldness, ALOPECIA
 Barracuda, SENNET
 Bark: Aromatic, SINTOC
 Bearlike, URSINE
 Beetle, ELATER
 Bible: Zoroastrian, AVESTA
 Bird: Sea, PETREL
 South American, SERIEMA
 Wading, AVOCET, AVOSET
 Bone: Leg, FIBULA
 Branched, RAMATE
 Brother (Latin), FRATER
 Bunting: European, ORTOLAN
 Call: Trumpet, SENNET
 Canoe: Eskimo, BAIDAR, OOMIAK
 Caravansary, IMARET
 Cat: Asian or African, CHEETAH
 Leopardlike, OCELOT
 Cenobite: Jewish, ESSENE
 Centerpiece: Table, EPERGNE
 Cetacean, DOLPHIN, PORPOISE
 Chariot, ESSEDA, ESSEDE
 Chief: Seminole, OSCEOLA
 Claim: Release as (law), REMISE
 Clock: Water, CLEPSYDRA
 Cloud, CUMULUS, NIMBUS
 Coach: French hackney, FIACRE
 Coin: Czech, KORUNA
 Ethiopian, TALARI
 Finnish, MARKKA
 German, THALER
 Greek, DRACHMA
 Haitian, GOURDE
 Honduran, LEMPIRA
 Hungarian, FORINT
 Indo-Chinese, PIASTER
 Netherlands, GUILDER
 Panamanian, BALBOA
 Paraguayan, GUARANI
 Portuguese, ESCUDO
 Russian, COPECK, KOPECK, ROUBLE
 Spanish, PESETA
 Venezuelan, BOLIVAR
 Communion: Last holy, VIATICUM
 Conceal (law), ELOIGN
 Confection, PRALINE
 Construction: Sentence, SYNTAX
 Convexity: Shaft of column, ENTASIS
 Court: Anglo-Saxon, GEMOTE
 Cow: Sea, DUGONG, MANATEE
 Cylindrical, TERETE
 Dagger, STILETTO
 Malay, CREESE, KREESE
 Date: Roman, CALENDIS, KALENDIS
 Deer, CARIBOU, WAPITI
 Disease: Plant, ERINOSE
 Doorkeeper, OSTIARY
 Dragonflies: Order of, ODANATA
 Drink: Of gods, NECTAR
 Drum: TABOUR
 Moorish, ATABAL, ATTABAL
 Duck: Fish-eating, MERGANSER
 Sea, SCOTER
 Dynasty: Chinese, MANCHU
 Eel, CONGER
 Edit, REDACT
 Envelope: Flower, PERIANTH
 Eskimo, AMERIND
 Ether: Crystalline, APIOLE
 Excuse (law), ESSOIN
 Eyespots, OCELLI
 Fabric, ESTAMENE, ESTAMIN, ETAMINE
 Falcon: European, KESTREL
 Figure: Used as column, CARYATID,
 TELAMON
 Fine: For punishment, AMERCE
 Fish: Asian fresh-water, GOURAMI
 Pikelike, BARRACUDA
 Five: Group of, PENTAD
 Fly: African, TSETSE
 Foot: Metric, ANAPEST, IAMBUS
 Foxlike, VULPINE
 Frying pan, SPIDER
 Fur, KARAKUL
 Galley: Greek or Roman, BIREME,
 TRIEME
 Game: Card, ECARTE
 Garment: Greek, CHLAMYS
 Gateway, GOPURA, TORANA
 Genus: Birds (ravens, crows), CORVUS
 Eels, CONGER
 Fishes, ANABAS
 Foxes, VULPES
 Herbs, ANEMONE
 Insects, CICADA
 Lemurs, GALAGO
 Mints (incl. catnip), NEPETA
 Mollusks, ANOMIA, ASTARTE, TEREDO
 Mollusks (incl. oysters), OSTREA
 Monkeys (spider monkeys), ATELES
 Thrushes (incl. robins), TURDUS
 Trees (of elm family), CELTIS
 Trees (incl. dogwood), CORNUS
 Trees, tropical American, SAPOTA
 Wrens, NANNUS
 Gibbon, SIAMANG, WOUWOU
 Gland: Salivary, RACEMOSE
 Goat: Bezoar, PASANG
 Goatlike, CAPRINE
 God: Assyrian, ASHSHUR, ASSHUR
 Babylonian, BABBAR, MARDUK, MERO-
 DACH, NANNAR, NERGAL, SHAMASH
 Hindu, BRAHMA, KRISHNA, VISHNU
 Tahitian, TAAROA
 Goddess: Babylonian, ISHTAR

Hindu, CHANDI, HAIMAVATI,
 LAKSHMI, PARVATI, SARASVATI,
 SARASWATI
 Government, POLITY
 Governor: Persian, SATRAP
 Grandson (Scotch), NEPOTE
 Group: Of five, PENTAD
 Of nine, ENNEAD
 Of seven, HEPTAD
 Hare: In first year, LEVERET
 Harpsichord, SPINET
 Herb: Alpine, EDELWEISS
 Chinese, GINSENG
 South African, FREESIA
 Hermit, EREMITTE
 Hero: Legendary, PALADIN
 Heron, BITTERN
 Horselike, EQUINE
 Hound: Short-legged, BEAGLE
 House (French), MAISON
 Idiot, CRETIN
 Implement: Stone, NEOLITH
 Incarnation: Hindu, AVATAR
 Indian, APACHE, COMANCHE, PAIUTE,
 SENECA
 Inn: Turkish, IMARET
 Insects: Order of, DIPTERA
 Instrument: Japanese banjolike, SAMISEN
 Musical, CLAVIER, SPINET
 Interstice, AREOLA
 Ironwood, COLIMA
 Juniper: Old Testament, RAETAM
 Kettledrum, ATABAL
 King: Fairy, OBERON
 Kneecap, PATELLA
 Knife, MACHETE
 Langur: Sumatran, SIMPAI
 Legislature: Spanish, CORTES
 Lemur: African, GALAGO
 Madagascar, AYEAYE
 Letter: Greek, EPSILON, LAMBDA, OMI-
 CRON, UPSILON
 Hebrew: DALETH, LAMEDH, SAMEKH
 Lighthouse, PHAROS
 Lizard, IGUANA
 Llama, ALPACA
 Lockjaw, TETANUS
 Locust, CICADA, CICALA
 Macaw: Brazilian, MARACAN
 Maid: Of Astolat, ELAINE
 Mammal: Madagascar, TENDRAC,
 TENREC
 Man (Spanish), HOMBRE
 Marmoset: South American, TAMARIN
 Marsupial, BANDICOOT, WOMBAT
 Massacre, POGROM
 Mayor: Spanish, ALCALDE
 Measure: Electric, AMPERE, COULOMB,
 KILOWATT
 Medicine: Quack, NOSTRUM
 Member: Religious order, CENOBIOTE
 Molasses, TREACLE
 Monkey: African, GRIVET, NISNAS
 Asian, LANGUR
 Philippine, MACHIN
 South American, PINCHE, SAIMIRI,
 SAMIRI, SAPAJOU
 Monster, CHIMERA, GORGON

(Comb. form), TERATO
 Cretan, MINOTAUR
 Month: Jewish, HESHVAN, KISLEV, SHE-
 BAT, TAMMUZ, TISHRI, VEADAR
 Mountain: Asia Minor, ARARAT
 Mule, AMERCE
 Musketeer, ARAMIS, PORTHOS
 Nearsighted, MYOPIC
 Net, TRAMMEL
 New York City, GOTHAM
 Nine: Group of, ENNEAD
 Nobleman: Spanish, GRANDEE
 Official: Roman, AEDILE
 Onyx: Mexican, TECALI
 Order: Dragonflies, ODANATA
 Insects, DIPTERA
 Organ: Plant, PISTIL
 Ornament: Shoulder, EPAULET
 Overcoat: Military, CAPOTE
 Ox: Wild, BANTENG
 Oxidation: Bronze or copper, PATINA
 Paralysis: Incomplete, PARESIS
 Pear: Alligator, AVOCADO
 Persimmon: Mexican, CHAPOTE
 Pipe: Peace, CALUMET
 Plaid (Scotch), TARTAN
 Plain, PAMPAS, STEPPE, TUNDRA
 Plant: Buttercup family, ANEMONE
 Century, MAGUEY
 On rocks, LICHEN
 Plowing: Fit for, ARABLE
 Poem: Heroic, EPOPEE
 Six-lined, SESTET
 Point: Highest, ZENITH
 Potion: Love, PHILTER, PHILTRE
 Protozoan, AMOEBA
 Punish, AMERCE
 Purple (heraldry), PURPURE
 Queen: Fairy, TITANIA
 Race: Skiing, SLALOM
 Rat, BANDICOOT, LEMMING
 Retort, RIPOST, RIPOSTE
 Ring: Harness, TERRET
 Little, ANNULET
 Rodent: Jumping, JERBOA
 Spanish American, AGOUTI, AGOUTY
 Sailor: East Indian, LASCAR
 Salmon: Young, GRILSE
 Salutation: Eastern, SALAAM
 Sandpiper, PLOVER
 Sandy, ARENOSE
 Sapodilla, SAPOTA, SAPOTE
 Saw: Surgical, TREPAN
 Seven: Group of, HEPTAD
 Sexes: Common to both, EPICENE
 Shawl: Mexican, SERAPE
 Sheathing: Flower, SPATHE
 Sheep: Wild, AOUDAD, ARGALI
 Shipworm, TEREDO
 Shoes: Mercury's winged, TALARIA
 Shortening: Syllable, SYSTOLE
 Shrub, SPIRAEA
 Sickle-shaped, FALCATE
 Silver (heraldry), ARGENT
 Snake, ANACONDA
 Speech: Loss of, APHASIA
 Spiral, HELICAL
 Staff: Bishop's, CROSIER, CROZIER

Stalk: Plant, PETIOLE
 State: Swiss, CANTON
 Studio, ATELIER
 Swan: Young, CYGNET
 Swimming, NATANT
 Sword-shaped, ENSATE
 Terminal: Negative, CATHODE
 Third (music), TIERCE
 Thrust: Fencing, RIPOST, RIPOSTE
 Tile: Pertaining to, TEGULAR
 Tomb: Empty, CENOTAPH
 Tooth (comb. form), ODONTO
 Tower: Mohammedan, MINARET
 Tree: African timber, BAOBAB
 Black gum, TUPELO
 East Indian, MARGOSA
 Locust, ACACIA
 Malayan, SINTOC
 Marmalade, SAPOTE
 Urn: Tea, SAMOVAR
 Vehicle, LANDAU, TROIKA

Verbose, PROLIX
 Viceroy: Egyptian, KHEDIVE
 Vulture: American, CONDOR
 Warehouse (French), ENTREPOT
 Whale: White, BELUGA
 Whirlpool, VORTEX
 Will: Addition to, CODICIL
 Having left, TESTATE
 Wind, CHINOOK, MONSOON, SIMOOM,
 SIMOON, SIROCCO
 Window: In roof, DORMER
 Wine, BARBERA, BURGUNDY, CABER-
 NET, CHABLIS, CHIANTI, CLARET,
 MUSCATEL, RIESLING, SAUTERNE,
 SHERRY, ZINFANDEL
 Woolfish, LUPINE
 Woman: Boisterous, TERMAGANT
 Woolly, LANATE
 Workshop, ATELIER
 Zoroastrian, PARSEE

Old-Testament Names

(We do not pretend that this list is all-inclusive. We include only those names which in our opinion one meets most often in crossword puzzles.)

AARON: First high priest of Jews; son of Amram; brother of Miriam and Moses; father of Abihu, Eleazer, Ithamar, and Nadab.

ABEL: Son of Adam; slain by Cain.

ABIGAIL: Wife of Nabal; later, wife of David.

ABIHU: Son of Aaron.

ABIMELECH: King of Gerar.

ABNER: Commander of army of Saul and Ishbosheth; slain by Joab.

ABRAHAM (or ABRAM): Patriarch; forefather of the Jews; son of Terah; husband of Sarah; father of Isaac and Ishmael.

ABSALOM: Son of David and Maacah; revolted against David; slain by Joab.

ACHISH: King of Gath; gave refuge to David.

ACHSA (or ACHSAH): Daughter of Caleb; wife of Othniel.

ADAH: Wife of Lamech.

ADAM: First man; husband of Eve; father of Cain, Abel, and Seth.

ADONIJAH: Son of David and Haggith.

AGAG: King of Amalek; spared by Saul; slain by Samuel.

AHASUERUS: King of Persia; husband of Vashti and later, Esther; sometimes identified with Xerxes the Great.

AHIJAH: Prophet; foretold accession of Jeroboam.

AHINOAM: Wife of David.

AMASA: Commander of army of David; slain by Joab.

AMNON: Son of David and Ahinoam; ravished Tamar; slain by Absalom.

AMRAM: Husband of Jochebed; father of Aaron, Miriam and Moses.

ASENATH: Wife of Joseph.

ASHER: Son of Jacob and Zilpah.

BALAAM: Prophet; rebuked by his donkey for cursing God.

BARAK: Jewish captain; associated with Deborah.

BARUCH: Secretary to Jeremiah.

BATHSHEBA: Wife of Uriah; later, wife of David.

BELSHAZZAR: Crown prince of Babylon.

BENAIHAH: Warrior of David; proclaimed Solomon King.

BEN-HADAD: Name of several kings of Damascus.

BENJAMIN: Son of Jacob and Rachel.

BEZALEEL: Chief architect of tabernacle.

BILDAD: Comforter of Job.

BILBAH: Servant of Rachel; mistress of Jacob.

BOAZ: Husband of Ruth; father of Obed.

CAIN: Son of Adam and Eve; slayer of Abel; father of Enoch.

CAINAN: Son of Enos.

CALEB: Spy sent out by Moses to visit Canaan; father of Achsa.

CANAAN: Son of Ham.

CHILION: Son of Elimelech; husband of Orpah.

CUSH: Son of Ham; father of Nimrod.

DAN: Son of Jacob and Bilhah.

DANIEL: Prophet; saved from lions by God.

DEBORAH: Hebrew prophetess; helped Israelites conquer Canaanites.

DELILAH: Mistress and betrayer of Samson.

ELAM: Son of Shem.

ELEAZAR: Son of Aaron; succeeded him as high priest.

ELI: High priest and judge; teacher of Samuel; father of Hophni and Phinehas.

ELIAKIM: Chief minister of Hezekiah.

ELIEZER: Servant of Abraham.

ELIHU: Comforter of Job.

ELIJAH (or ELIAS): Prophet; went to heaven in chariot of fire.

ELIMELECH: Husband of Naomi; father of Chilion and Mahlon.

ELIPHAZ: Comforter of Job.

ELISHA (or ELISEUS): Prophet; successor of Elijah.

ELKANAH: Husband of Hannah; father of Samuel.

ENOCHE: Son of Cain.

ENOCHE: Father of Methuselah.

ENOS: Son of Seth; father of Cainan.

EPHRAIM: Son of Joseph.

ESAU: Son of Isaac and Rebecca; sold his birthright to his brother Jacob.

ESTHER: Jewish wife of Ahasuerus; saved Jews from Haman's plotting.

EVE: First woman; created from rib of Adam.

EZRA (or ESDRAS): Hebrew scribe and priest.

GAD: Son of Jacob and Zilpah.

GEHAZI: Servant of Elisha.

GIDEON: Israelite hero; defeated Midianites.

GOLIATH: Philistine giant; slain by David.

HAGAR: Handmaid of Sarah; concubine of Abraham; mother of Ishmael.

HAGGITH: Mother of Adonijah.

HAM: Son of Noah; father of Cush, Mizraim, Phut, and Canaan.

HAMAN: Chief minister of Ahasuerus; hanged on gallows prepared for Mordecai.

HANNAH: Wife of Elkanah; mother of Samuel.

HANUN: King of Ammonites.

HARAN: Brother of Abraham; father of Lot.

HAZAEEL: King of Damascus.

HEPHZI-BAH: Wife of Hezekiah; mother of Manasseh.

HIRAM: King of Tyre.

HOLOFERNES: General of Nebuchadnezzar; slain by Judith.

HOPHNI: Son of Eli.

ISAAC: Hebrew patriarch; son of Abraham and Sarah; half brother of Ishmael; husband of Rebecca; father of Esau and Jacob.

ISHMAEL: Son of Abraham and Hagar; half brother of Isaac.

ISSACHAR: Son of Jacob and Leah.

ITHAMAR: Son of Aaron.

JABAL: Son of Lamech and Adah.

JABIN: King of Hazor.

JACOB: Hebrew patriarch, founder of Israel; son of Isaac and Rebecca; husband of Leah and Rachel; father of Asher, Benjamin, Dan, Gad, Issachar, Joseph, Judah, Levi, Naphtali, Reuben, Simeon, and Zebulun.

JAEEL: Slayer of Sisera.

JAPHETH: Son of Noah.

JEHOIADA: High priest; husband of Jehoshabeath; revolted against Athaliah and made Joash King of Judah.

JEHOSHABEATH (or JEHOSEBA): Daughter of Jehoram of Judah; wife of Jehoiada.

JEPHTHAH: Judge in Israel; sacrificed his only daughter because of vow.

JESSE: Son of Obed; father of David.

JETHRO: Midianite priest; father of Zipporah.

JEZEABEL: Phoenician princess; wife of Ahab; mother of Ahaziah, Athaliah, and Jehoram.

JOAB: Commander in chief under David; slayer of Abner, Absalom, and Amasa.

JOB: Patriarch; underwent many afflictions; comforted by Bildad, Eliphaz, and Zophar.

JOCHEBED: Wife of Amram.

JONAH: Prophet; cast into sea and swallowed by great fish.

JONATHAN: Son of Saul; friend of David.

JOSEPH: Son of Jacob and Rachel; sold into slavery by his brothers; husband of Asenath; father of Ephraim and Manasseh.

JOSHUA: Successor of Moses; son of Nun.

JUBAL: Son of Lamech and Adah.

JUDAH: Son of Jacob and Leah.

JUDITH: Slayer of Holofernes.

KISH: Father of Saul.

LABAN: Father of Leah and Rachel.

LAMECH: Son of Methuselah; father of Noah.

LAMECH: Husband of Adah and Zillah; father of Jabal, Jubal, and Tubal-Cain.

LEAH: Daughter of Laban; wife of Jacob.

LEVI: Son of Jacob and Leah.

LOT: Son of Haran; escaped destruction of Sodom.

MAACAH: Mother of Absalom and Tamar.

MAHLON: Son of Elimelech; first husband of Ruth.

MANASSEH: Son of Joseph.

MELCHIZEDEK: King of Salem.

METHUSELAH: Patriarch; son of Enoch; father of Lamech.

MICHAEL: Daughter of Saul; wife of David.

MIRIAM: Prophetess; daughter of Amram; sister of Aaron and Moses.

MIZRAIM: Son of Ham.

MORDECAI: Uncle of Esther; with her aid, saved Jews from Haman's plotting.

MOSES: Prophet and lawgiver; son of Amram; brother of Aaron and Miriam; husband of Zipporah.

NAAMAN: Syrian captain; cured of leprosy by Elisha.

NABAL: Husband of Abigail.

NABOTH: Owner of vineyard; stoned to death because he would not sell it to Ahab.

NADAB: Son of Aaron.

NAHOR: Father of Terah.

NAOMI: Wife of Elimelech; mother-in-law of Ruth.

NAPHTALI: Son of Jacob and Bilhah.

NATHAN: Prophet; reproved David for causing Uriah's death.

NEBUCHADNEZZAR (or **NEBUCHADREZZAR**): King of Babylon; destroyer of Jerusalem.

NEHEMIAH: Jewish leader; empowered by Artaxerxes to rebuild Jerusalem.

NIMROD: Mighty hunter; son of Cush.

NOAH: Patriarch; Son of Lamech; escaped Deluge by building Ark; father of Ham, Japheth and Shem.

NUN (or **NON**): Father of Joshua.

OBED: Son of Boaz; father of Jesse.

OG: King of Bashan.

ORPAH: Wife of Chilion.

OTHNIEL: Kenezite; judge of Israel; husband of Achsa.

PHINEHAS: Son of Eleazer.

PHINEHAS: Son of Eli.

PHUT (or **PUT**): Son of Ham.

POTIPHAR: Egyptian official; bought Joseph.

RACHEL: Wife of Jacob.

REBECCA (or **REBEKAH**): Wife of Isaac.

REUBEN: Son of Jacob and Leah.

RUTH: Wife of Mahlon, later of Boaz; daughter-in-law of Naomi.

SAMSON: Judge of Israel; famed for strength; betrayed by Delilah.

SAMUEL: Hebrew judge and prophet; son of Elkanah.

SARAH (or **SARA**, **SARAI**): Wife of Abraham.

SENNACHERIB: King of Assyria.

SETH: Son of Adam; father of Enos.

SHEM: Son of Noah; father of Elam.

SIMEON: Son of Jacob and Leah.

SISERA: Canaanite captain; slain by Jael.

TAMAR: Daughter of David and Maachah; ravished by Amnon.

TERAH: Son of Nahor; father of Abraham.

TUBAL-CAIN: Son of Lamech and Zillah.

URIAH: Husband of Bathsheba; sent to death in battle by David.

VASHTI: Wife of Ahasuerus; set aside by him.

ZADOK: High priest during David's reign.

ZEBULUN (or **ZABULON**): Son of Jacob and Leah.

ZILLAH: Wife of Lamech.

ZILPAH: Servant of Leah; mistress of Jacob.

ZIPPORAH: Daughter of Jethro; wife of Moses.

ZOPHAR: Comforter of Job.

Kings of Judah and Israel

Kings Before Division of Kingdom

SAUL: First King of Israel; son of Kish; father of Ish-Bosheth, Jonathan and Michal.

ISH-BOSHETH (or **ESHBAAL**): King of Israel; son of Saul.

DAVID: King of Judah; later of Israel; son of Jesse; husband of Abigail, Ahinoam, Bathsheba, Michal, etc.; father of Absalom, Adonijah, Amnon, Solomon, Tamar, etc.

SOLOMON: King of Israel and Judah; son of David; father of Rehoboam.

REHOBOM: Son of Solomon; during his reign the kingdom was divided into Judah and Israel.

Kings of Judah (Southern Kingdom)

REHOBOM: First King.

ABIJAH (or **ABIJAM** or **ABIA**): Son of Rehoboam.

ASA: Probably son of Abijah.

JEHOSHAPHAT: Son of Asa.

JEHORAM (or **JORAM**): Son of Jehoshaphat; husband of Athaliah.

AHAZIAH: Son of Jehoram and Athaliah.

ATHALIAH: Daughter of King Ahab of Israel and Jezebel; wife of Jehoram.

JOASH (or **JEHOASH**): Son of Ahaziah.

AMAZIAH: Son of Joash.

UZZIAH (or **AZARIAH**): Son of Amaziah.

JOTHAM: Regent, later King; son of Uzziah.

AHAZ: Son of Jotham.

HEZEKIAH: Son of Ahaz; husband of Hephzi-Bah.

MANASSEH: Son of Hezekiah and Hephzi-Bah.

AMON: Son of Manasseh.

JOSIAH (or **JOSIAS**): Son of Amon.

JEHOAHAZ (or **JOAHAZ**): Son of Josiah.

JEHOIAKIM: Son of Josiah.

JEHOIACHIN: Son of Jehoiakim.

ZEDEKIAH: Son of Josiah; kingdom overthrown by Babylonians under Nebuchadnezzar.

Kings of Israel (Northern Kingdom)

JOEROAM I: Led secession of Israel.

NADAB: Son of Jeroboam I.

BAASHA: Overthrew Nadab.

ELAH: Son of Baasha.

ZIMRI: Overthrew Elah.

OMRI: Overthrew Zimri.

AHAB: Son of Omri; husband of Jezebel.

AHAZIAH: Son of Ahab.

JEHORAM (or **JORAM**): Son of Ahab.

JEHU: Overthrew Jehoram.

JEHOAHAZ (or **JOAHAZ**): Son of Jehu.

JEHOASH (or **JOASH**): Son of Jehozabab.

JEROBOAM II: Son of Jehoash.
 ZECHARIAH: Son of Jeroboam II.
 SHALLUM: Overthrew Zechariah.
 MENAHEM: Overthrew Shallum.

PEKAHIAH: Son of Menahem.
 PEKAH: Overthrew Pekahiah.
 HOSHEA: Overthrew Pekah; kingdom
 overthrown by Assyrians under Sargon II.

Prophets

Major

ISAIAH	JEREMIAH	EZEKIEL	DANIEL
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Minor

HOSEA	OBADIAH	NAHUM	HAGGAI
JOEL	JONAH	HABAKKUK	ZECHARIAH
AMOS	MICAH	ZEPHANIAH	MALACHI

Foreign Phrases

(NOTE: The English meanings given are not necessarily literal translations.)

AB OVO: From the beginning.
 ABSIT OMEN: Hope this is no bad luck.
 AEQUO ANIMO: Undisturbed in mind.
 AD VALOREM: According to its value.
 ALEA JACTA EST: The die is cast.
 ALMA MATER: One's college or school.
 ALTER EGO: Other self.
 AMICUS CURIAE: Friend of the court.
 ANNO DOMINI: Year of our Lord.
 BEL CANTO: A style of singing marked
 by virtuosity and beauty.
 BETE NOIRE: Particular nemesis.
 BONA FIDE: In good faith; genuine.
 CARPE DIEM: Enjoy today.
 CASUS BELLI: Cause of war.
 CAVEAT EMPTOR: Buy at your own
 risk.

CORPUS DELICTI: Fundamental fact or
 acts necessary to commission of a crime.
 CUI BONO: To whose advantage?
 CUM GRANO SALIS: With a grain of
 salt.

DE FACTO: As a matter of fact; because
 of this fact.

DEO GRATIAS: Thanks be to God.
 DEUS EX MACHINA: Artificially pro-
 duced to bring a solution of some extreme
 difficulty.

ECCE HOMO: This is the man.
 ERRARE HUMANUM (EST): To err is
 uman.

FESTINA LENTE: Make haste slowly.
 FIAT LUX: Let there be light.
 FIDUS ACHATES: Faithful friend.

FLAGRANTE DELICTO: Caught in the
 act.

HABEAS CORPUS: Common-law writ to
 bring a person before a court or judge.

HIC JACET: Here lies. . . .

HOI POLLOI: The common people.

HONORIS CAUSA: For the sake of
 honor.

HORS D'OEUVRES: Appetizers.
 IN VINO VERITAS: In wine there is
 truth.

IPSE DIXIT: An assertion made but not
 proved.

IPSO FACTO: By the very fact.
 JEUNESSE DOREE: Gilded youth.
 LABOR OMNIA VINCIT: Work over-
 comes all things.

LAISSEZ FAIRE: Noninterference.
 MIRABILE DICTU: Wonderful to relate.
 MULTUM IN PARVO: Much in little.
 NIL ADMIRARI: To be astonished at
 nothing.

NOLENS, VOLENS: Willy-nilly.
 O TEMPORA! O MORES!: What sad
 times and customs!

PERSONA GRATA: A favored person.
 POST MORTEM: After death.
 PRO BONO PUBLICO: For the public
 welfare.

PRO TEMPORE: For the time being.
 RARA AVIS: Extraordinary person or
 thing.

REQUIESCAT IN PACE: Rest in peace.
 SAVOIR FAIRE: Know-how; manners
 for all occasions.

SINE DIE: With no day set for the next
 meeting.

SINE QUA NON: Indispensable.
 SPIRITUS FRUMENTI: Alcohol.
 STATUS (IN) QUO: State in which any-
 thing is.

SUI GENERIS: In a class by itself.
 SURSUM CORDA: Lift up your hearts.
 TEMPUS FUGIT: Time flies.
 ULTIMA THULE: The limit in an ideal
 way.

VAE VICTIS: Woe to the conquered.

VENI, VIDI, VICI: I came, I saw, I
 conquered.

Greek and Roman Mythology

(Most of the Greek deities were adopted by the Romans, although in many cases there was a change of name. In the list below, information is given under the Greek name; the name in parentheses is the Latin equivalent. However, all Latin names are listed with cross references to the Greek ones. In addition there are several deities which were exclusively Roman.)

- ACHERON:** *See* Rivers.
- ACHILLES:** Greek warrior; slew Hector at Troy; slain by Paris, who wounded him in his vulnerable heel.
- ACTAEON:** Hunter; surprised Artemis bathing; changed by her to stag and killed by his dogs.
- ADMETUS:** King of Thessaly; his wife, Alcestis, offered to die in his place.
- ADONIS:** Beautiful youth loved by Aphrodite.
- AEACUS:** One of three judges of dead in Hades; son of Zeus.
- AETES:** King of Colchis; father of Medea; keeper of Golden Fleece.
- AEGEUS:** Father of Theseus; believing Theseus killed in Crete, he drowned himself, Aegean Sea named for him.
- AEGISTHUS:** Son of Thyestes; slew Atreus; with Clytemnestra, his paramour, slew Agamemnon; slain by Orestes.
- EGYPTUS:** Brother of Danaüs; his sons, except Lynceus, slain by Danaides.
- AENEAS:** Trojan; son of Anchises and Aphrodite; after fall of Troy, led his followers eventually to Italy; loved and deserted Dido.
- AEOLUS:** *See* Winds.
- AESCLAPIUS:** *See* Asclepius.
- AESON:** King of Ioclus; father of Jason; overthrown by his brother Pelias; restored to youth by Medea.
- AETHER:** Personification of sky.
- AETHRA:** Mother of Theseus.
- AGAMEMNON:** King of Mycenae; son of Atreus; brother of Menelaus; leader of Greeks against Troy; slain on his return home by Clytemnestra and Aegisthus.
- AGLAIA:** *See* Graces.
- AJAX:** Greek warrior; killed himself at Troy because Achilles' armor was awarded to Odysseus.
- ALCESTIS:** Wife of Admetus; offered to die in his place but saved from death by Hercules.
- ALCMENE:** Wife of Amphitryon; mother by Zeus of Hercules.
- ALCYONE:** *See* Pleiades.
- ALECTO:** *See* Furies.
- ALECTRYON:** Youth changed by Ares into cock.
- ALTHAEA:** Wife of Oeneus; mother of Meleager.
- AMAZONS:** Female warriors in Asia Minor; supported Troy against Greeks.
- AMOR:** *See* Eros.
- AMPHION:** Musician; husband of Niobe; charmed stones to build fortifications for Thebes.
- AMPHITRITE:** Sea goddess; wife of Poseidon.
- AMPHITRYON:** Husband of Alcmene.
- ANCHISES:** Father of Aeneas.
- ANCILE:** Sacred shield that fell from heavens; palladium of Rome.
- ANDRAEMON:** Husband of Dryope.
- ANDROMACHE:** Wife of Hector.
- ANDROMEDA:** Daughter of Cepheus; chained to cliff for monster to devour; rescued by Perseus.
- ANTEIA:** Wife of Proetus; tried to induce Bellerophon to elope with her.
- ANTEROS:** God who avenged unrequited love.
- ANTIGONE:** Daughter of Oedipus; accompanied him to Colonos; performed burial rite for Polynices and was buried alive.
- ANTINOÜS:** Leader of suitors of Penelope; slain by Odysseus.
- APHRODITE (VENUS):** Goddess of love and beauty; daughter of Zeus; mother of Eros.
- APOLLO:** God of beauty, poetry, music; later identified with Helios as Phoebus Apollo; son of Zeus and Leto.
- AQUILUS:** *See* Winds.
- ARACHNE:** Maiden who challenged Athena to weaving contest; changed to spider.
- ARES (MARS):** God of war; son of Zeus and Hera.
- ARGO:** Ship in which Jason and followers sailed to Colchis for Golden Fleece.
- ARGUS:** Monster with hundred eyes; slain by Hermes; his eyes placed by Hermes into peacock's tail.
- ARIADNE:** Daughter of Minos; aided Theseus in slaying Minotaur; deserted him on island of Naxos and married Dionysus.
- ARION:** Musician; thrown overboard by pirates but saved by dolphin.
- ARTEMIS (DIANA):** Goddess of moon; huntress; twin sister of Apollo.
- ASCLEPIUS (AESCLAPIUS):** Mortal son of Apollo; slain by Zeus for raising dead; later deified as god of medicine. Also known as Asklepios.
- ASTARTE:** Phoenician goddess of love; variously identified with Aphrodite, Selene and Artemis.

ASTRAEA: Goddess of Justice; daughter of Zeus and Themis.

ATALANTA: Princess who challenged her suitors to a foot race; Hippomenes won race and married her.

ATHENA (MINERVA): Goddess of wisdom; known poetically as Pallas Athene; sprang fully armed from head of Zeus.

ATLAS: Titan; held world on his shoulders as punishment for warring against Zeus; son of Iapetus.

ATREUS: King of Mycenae; father of Menelaus and Agamemnon; brother of Thyestes, three of whose sons he slew and served to him at banquet; slain by Aegisthus.

ATROPOS: *See* Fates.

AURORA: *See* Eos.

AUSTER: *See* Winds.

AVERNUS: Infernal regions; name derived from small vaporous lake near Vesuvius which was fabled to kill birds and vegetation.

BACCHUS: *See* Dionysus.

BELLEROPHON: Corinthian hero; killed Chimera with aid of Pegasus; tried to reach Olympus on Pegasus and was thrown to his death.

BELLONA: Roman goddess of war.

BOREAS: *See* Winds.

BRIAREUS: Monster of hundred hands; son of Uranus and Gaea.

BRISEIS: Captive maiden given to Achilles; taken by Agamemnon in exchange for loss of Chryseis, which caused Achilles to cease fighting, until death of Patroclus.

CADMUS: Brother of Europa; planter of dragon seeds from which first Thebans sprang.

CALLIOPE: *See* Muses.

CALYPSO: Sea nymph; kept Odysseus on her island Ogygia for seven years.

CASSANDRA: Daughter of Priam; prophetess who was never believed; slain with Agamemnon.

CASTOR: *See* Dioscuri.

CELAENO: *See* Pleiades.

CENTAURS: Beings half man and half horse; lived in mountains of Thessaly.

CEPHALUS: Hunter; accidentally killed his wife Procris with his spear.

CEPHEUS: King of Ethiopia; father of Andromeda.

CERBERUS: Three-headed dog guarding entrance to Hades.

CERES: *See* Demeter.

CHAOS: Formless void; personified as first of gods.

CHARON: Boatman on Styx who carried souls of dead to Hades; son of Erebus.

CHARYBDIS: Female monster; personification of whirlpool.

CHIMERA: Female monster with head of lion, body of goat, tail of serpent; killed by Bellerophon.

CHIRON: Most famous of centaurs.

CHRONOS: Personification of time.

CHRYSEIS: Captive maiden given to Agamemnon; his refusal to accept ransom from her father Chryses caused Apollo to send plague on Greeks besieging Troy.

CIRCE: Sorceress; daughter of Helios; changed Odysseus' men into swine.

CLIO: *See* Muses.

CLOTHO: *See* Fates.

CLYTEMNESTRA: Wife of Agamemnon, whom she slew with aid of her paramour, Aegisthus; slain by her son Orestes.

COCYTUS: *See* Rivers.

CREON: Father of Jocasta; forbade burial of Polynices; ordered burial alive of Antigone.

CREÜSA: Princess of Corinth, for whom Jason deserted Medea; slain by Medea, who sent her poisoned robe; also known as Glauke.

CREÜSA: Wife of Aeneas; died fleeing Troy.

CRONUS (SATURN): Titan; god of harvests; son of Uranus and Gaea; dethroned by his son Zeus.

CUPID: *See* Eros.

CYBELE: Anatolian nature goddess; adopted by Greeks and identified with Rhea.

CYCLOPES: Race of one-eyed giants (singular: Cyclops).

DAEDALUS: Athenian artificer; father of Icarus; builder of Labyrinth in Crete; devised wings attached with wax for him and Icarus to escape Crete.

DANAË: Princess of Argos; mother of Perseus by Zeus, who appeared to her in form of golden shower.

DANAÏDES: Daughters of Danaüs; at his command, all except Hypermnestra slew their husbands, the sons of Aegyptus.

DANAÜS: Brother of Aegyptus; father of Danaïdes; slain by Lynceus.

DAPHNE: Nymph; pursued by Apollo; changed to laurel tree.

DECUMA: *See* Fates.

DEINO: *See* Graee.

DEMETER (CERES): Goddess of agriculture; mother of Persephone.

DIANA: *See* Artemis.

DIDO: Founder and queen of Carthage; stabbed herself when deserted by Aeneas.

DIOMEDES: Greek hero; with Odysseus, entered Troy and carried off Palladium, sacred statue of Athena.

DIOMEDES: Owner of man-eating horses, which Hercules, as ninth labor, carried off.

DIONE: Titan goddess; mother by Zeus of Aphrodite.

DIONYSUS (BACCHUS): God of wine; son of Zeus and Semele.

DIOSCURI: Twins Castor and Pollux; sons of Leda by Zeus.

DIS: See Hades.

DRYADS: Wood nymphs.

DRYCOPE: Maiden changed to Hamadryad.

ECHO: Nymph who fell hopelessly in love with Narcissus; faded away except for her voice.

ELECTRA: Daughter of Agamemnon and Clytemnestra; sister of Orestes; urged Orestes to slay Clytemnestra and Aegisthus.

ELECTRA: See Pleiades.

ELYSIUM: Abode of blessed dead.

ENDYMION: Mortal loved by Selene.

ENYO: See Graeae.

EOS (AURORA): Goddess of dawn.

EPIMETHEUS: Brother of Prometheus; husband of Pandora.

ERATO: See Muses.

EREBUS: Spirit of darkness; son of Chaos.

ERINYES: See Furies.

ERIS: Goddess of discord.

EROS (AMOR or CUPID): God of love; son of Aphrodite.

ETEOCLES: Son of Oedipus, whom he succeeded to rule alternately with Polynices; refused to give up throne at end of year; he and Polynices slew each other.

EUMENIDES: See Furies.

EUPHROSYNE: See Graces.

EUROPA: Mortal loved by Zeus, who, in form of white bull, carried her off to Crete.

EURUS: See Winds.

EURYALE: See Gorgons.

EURYDICE: Nymph; wife of Orpheus.

EURYSTHEUS: King of Argos; imposed twelve labors on Hercules.

EUTERPE: See Muses.

FATES: Goddesses of destiny: Clotho (Spinner of thread of life), Lachesis (Determiner of length), and Atropos (Cutter of thread); also called Moirae. Identified by Romans with their goddesses of fate; Nona, Decuma, and Morta; called Parcae.

FAUNS: Roman deities of woods and groves.

FAUNUS: See Pan.

FAVONIUS: See Winds.

FLORA: Roman goddess of flowers.

FORTUNA: Roman goddess of fortune.

FURIES: Avenging spirits: Alecto, Megaera, and Tisiphone; known also as Erinyes or Eumenides.

GAEA: Goddess of earth; daughter of Chaos; mother of Titans; known also as Ge, Gaia, etc.

GALATEA: Statue of maiden carved from ivory by Pygmalion; given life by Aphrodite.

GALATEA: Sea nymph; loved by Polyphemus.

GANYMEDE: Beautiful boy; successor to Hebe as cupbearer of gods.

GLAUCUS: Mortal who became sea divinity by eating magic grass.

GLAUKE: See Creüsa.

GOLDEN FLEECE: Fleece from ram that flew Phrixos to Colchis; Aeëtes placed it under guard of dragon; carried off by Jason.

GORGONS: Female monsters: Euryale, Medusa, and Stheno; had snakes for hair; their glances turned mortals to stone. See Medusa.

GRACES: Beautiful goddesses: Aglala (Brilliance), Euphrosyne (Joy), and Thalia (Bloom); daughters of Zeus.

GRAEAE: Sentinels for Gorgons: Deino, Enyo, and Pephredo; had one eye among them, which passed from one to another.

HADES (DIS): Name sometimes given Pluto; also, abode of dead, ruled by Pluto.

HAEMON: Son of Creon; promised husband of Antigone; killed himself in her tomb.

HAMADRYADS: Tree nymphs; lived and died with trees they inhabited.

HARPIES: Monsters with heads of women and bodies of birds.

HEBE (JUVENTAS): Goddess of youth; cupbearer of gods before Ganymede; daughter of Zeus and Hera.

HECATE: Goddess of sorcery and witchcraft.

HECTOR: Son of Priam; slayer of Patroclus; slain by Achilles.

HECUBA: Wife of Priam.

HELEN: Fairest woman in world; daughter of Zeus and Leda; wife of Menelaus; carried to Troy by Paris, causing Trojan War.

HELIADES: Daughters of Helios; mourned for Phaëthon and were changed to poplar trees.

HELIOS (SOL): God of sun; later identified with Phoebus Apollo.

HELLE: Sister of Phrixos; fell from ram of Golden Fleece; water where she fell named Hellespont.

HEPHAESTUS (VULCAN): God of fire; celestial blacksmith; son of Zeus and Hera; husband of Aphrodite.

HERA (JUNO): Queen of heaven; wife of Zeus.

HERCULES: Hero and strong man; son of Zeus and Alcmena; performed twelve

labors or deeds to be free from bondage under Eurystheus; after death, his mortal share was destroyed, and he became immortal. Also known as Herakles or Heracles. Labors: (1) killing Nemean lion; (2) killing Lernaean Hydra; (3) capturing Erymanthian boar; (4) capturing Cerynean hind; (5) killing man-eating Stymphalian birds; (6) procuring girdle of Hippolyte; (7) cleaning Augean stables; (8) capturing Cretan bull; (9) capturing man-eating horses of Diomedes; (10) capturing cattle of Geryon; (11) procuring golden apples of Hesperides; (12) bringing Cerberus up from Hades.

HERMES (MERCURY): God of physicians and thieves; messenger of gods; son of Zeus and Maia.

HERO: Priestess of Aphrodite; Leander swam Hellespont nightly to see her; drowned herself at his death.

HESPERUS: Evening star.

HESTIA (VESTA): Goddess of hearth; sister of Zeus.

HIPPOLYTE: Queen of Amazons; wife of Theseus.

HIPPOLYTUS: Son of Theseus and Hippolyce; falsely accused by Phaedra of trying to kidnap her; slain by Poseidon at request of Theseus.

HIPPOMENES: Husband of Atalanta, whom he beat in foot race by dropping golden apples, which she stopped to pick up.

HYACINTHUS: Beautiful youth accidentally killed by Apollo, who caused flower to spring up from his blood.

HYDRA: Nine-headed monster in marsh of Lerna; slain by Hercules.

HYGEIA: Personification of health.

HYMEN: God of marriage.

HYPERION: Titan; early sun god; father of Helios.

HYPERMNESTRA: Daughter of Danaüs; refused to kill her husband Lynceus.

HYPNOS (SOMNUS): God of sleep.

IAPETUS: Titan; father of Atlas, Epimetheus, and Prometheus.

ICARUS: Son of Daedalus; flew too near sun with wax-attached wings and fell into sea and was drowned.

IO: Mortal maiden loved by Zeus; changed by Hera into heifer.

IOBATES: King of Lycia; sent Bellerophon to slay Chimera.

IPHIGENIA: Daughter of Agamemnon; offered as sacrifice to Artemis at Aulis; carried by Artemis to Tauris where she became priestess; escaped from there with Orestes.

IRIS: Goddess of rainbow; messenger of Zeus and Hera.

ISMENE: Daughter of Oedipus; sister of Antigone.

IULUS: Son of Aeneas.

IXION: King of Lapithae; for making love to Hera he was bound to endlessly revolving wheel in Tartarus.

JANUS: Roman god of gates and doors; represented with two opposite faces.

JASON: Son of Aeson; to gain throne of Iolus from Pelias, went to Colchis and brought back Golden Fleece; married Medea; deserted her for Creusa.

JOCASTA: Wife of Laius; mother of Oedipus; unwittingly became wife of Oedipus; hanged herself when relationship was discovered.

JUNO: See Hera.

JUPITER: See Zeus.

JUVENTAS: See Hebe.

LACHESIS: See Fates.

LAIUS: Father of Oedipus, by whom he was slain.

LAOCOÖN: Priest of Apollo at Troy; warned against bringing wooden horse into Troy; destroyed with his two sons by serpents sent by Athena.

LARES: Roman ancestral spirits protecting descendants and homes.

LAVINIA: wife of Aeneas after defeat of Turnus.

LEANDER: Swam Hellespont nightly to see Hero; drowned in storm.

LEDA: Mortal loved by Zeus in form of Swan; mother of Helen, Clytemnestra, Dioscuri.

LETHE: See Rivers.

LETO (LATONA): Mother by Zeus of Artemis and Apollo.

LUCINA: Roman goddess of childbirth; identified with Juno.

LYNCEUS: Son of Aegyptus; husband of Hypermnestra; slew Danaüs.

MAIA: Daughter of Atlas; mother of Hermes.

MAIA: See Pleiades.

MANES: Souls of dead Romans, particularly of ancestors.

MARS: See Ares.

MARSYAS: Shepherd; challenged Apollo to music contest and lost; flayed alive by Apollo.

MEDEA: Sorceress; daughter of Aeëtes; helped Jason obtain Golden Fleece; when deserted by him for Creusa, killed her children and Creusa.

MEDUSA: Gorgon; slain by Perseus, who cut off her head.

MEGAERA: See Furies.

MELEAGER: Son of Althaea; his life would last as long as brand burning at his birth; Althaea quenched and saved it but destroyed it when Meleager slew his uncles.

MELPOMENE: See Muses.

MEMNON: Ethiopian king; made immortal by Zeus; son of Tithonus and Eos.

MENELAUS: King of Sparta; son of Atreus; brother of Agamemnon; husband of Helen.

MERCURY: *See* Hermes.

MEROPE: *See* Pleiades.

MEZENTIUS: Cruel Etruscan king; ally of Turnus against Aeneas; slain by Aeneas.

MIDAS: King of Phrygia; given gift of turning to gold all he touched.

MINERVA: *See* Athena.

MINOS: King of Crete; after death, one of three judges of dead in Hades; son of Zeus and Europa.

MINOTAUR: Monster, half man and half beast, kept in Labyrinth in Crete; slain by Theseus.

MNEMOSYNE: Goddess of memory; mother by Zeus of Muses.

MOIRAE: *See* Fates.

MOMUS: God of ridicule.

MORPHEUS: God of dreams.

MORS: *See* Thanatos.

MORTA: *See* Fates.

MUSES: Goddesses presiding over arts and sciences: Calliope (epic poetry), Clio (history), Erato (lyric and love poetry), Euterpe (music), Melpomene (tragedy), Polymnia or Polyhymnia (sacred poetry), Terpsichore (choral dance and song), Thalia (comedy and bucolic poetry), Urania (astronomy); daughters of Zeus and Mnemosyne.

NAIADS: Nymphs of waters, streams, and fountains.

NAPAEAE: Wood nymphs.

NARCISSUS: Beautiful youth loved by Echo; in punishment for not returning her love, he was made to fall in love with his image reflected in pool; pined away and became flower.

NEMESIS: Goddess of retribution.

NEOPTOLEMUS: Son of Achilles; slew Priam; also known as Pyrrhus.

NEPTUNE: *See* Poseidon.

NEREIDS: Sea nymphs; attendants on Poseidon.

NESTOR: King of Pylos; noted for wise counsel in expedition against Troy.

NIKE: Goddess of victory.

NIOBE: Daughter of Tantalus; wife of Amphion; her children slain by Apollo and Artemis; changed to stone but continued to weep her loss.

NONA: *See* Fates.

NOTUS: *See* Winds.

NOX: *See* Nyx.

NYMPHS: Beautiful maidens; inferior deities of nature.

NYX (NOX): Goddess of night.

OCEANIDS: Ocean nymphs; daughters of Oceanus.

OCEANUS: Eldest of Titans; god of waters.

ODYSSEUS (ULYSSES): King of Ithaca; husband of Penelope; wandered ten years after fall of Troy before arriving home.

OEDIPUS: King of Thebes; son of Laius and Jocasta; unwittingly murdered Laius and married Jocasta; tore his eyes out when relationship was discovered.

OENONE: Nymph of Mount Ida; wife of Paris, who abandoned her; refused to cure him when he was poisoned by arrow of Philoctetes at Troy.

OPS: *See* Rhea.

OREADS: Mountain nymphs.

ORESTES: Son of Agamemnon and Clytemnestra; brother of Electra; slew Clytemnestra and Aegisthus; pursued by Furies until his purification by Apollo.

ORION: Hunter; slain by Artemis; made heavenly constellation.

ORPHEUS: Famed musician; son of Apollo and Muse Calliope; husband of Eurydice.

PALES: Roman goddess of shepherd and herdsmen.

PALINURUS: Aeneas' pilot; fell overboard in his sleep and was drowned.

PAN (FAUNUS): God of woods and fields; part goat; son of Hermes.

PANDORA: Opener of box containing human ills; mortal wife of Epimetheus.

PARCAE: *See* Fates.

PARIS: Son of Priam; gave apple of discord to Aphrodite, for which she enabled him to carry off Helen; slew Achilles at Troy; slain by Philoctetes.

PATROCLUS: Great friend of Achilles; wore Achilles' armor and was slain by Hector.

PEGASUS: Winged horse that sprang from Medusa's body at her death; ridden by Bellerophon when he slew Chimera.

PELIAS: King of Iolus; seized throne from his brother Aeson; sent Jason for Golden Fleece; slain unwittingly by his daughters at instigation of Medea.

PELOPS: Son of Tantalus; his father cooked and served him to gods; restored to life; Peloponnesus named for him.

PENATES: Roman household gods.

PENELOPE: Wife of Odysseus; waited faithfully for him for ten years while putting off numerous suitors.

PEPHREDO: *See* Graeae.

PERIPHETES: Giant; son of Hephaestus; slain by Theseus.

PERSEPHONE (PROSERPINE): Queen of infernal regions; daughter of Zeus and Demeter; wife of Pluto.

PERSEUS: Son of Zeus and Danaë; slew Medusa; rescued Andromeda from monster and married her.

PHAEDRA: Daughter of Minos; wife of Theseus; falsely accused Hippolytus of trying to kidnap her.

PHAETHON: Son of Helios; drove his father's sun chariot and was struck down by Zeus before he set world on fire.

PHILOCTETES: Greek warrior who possessed Hercules' bow and arrows; slew Paris at Troy with poisoned arrow.

PHINEUS: Betrothed of Andromeda; tried to slay Perseus but turned to stone by Medusa's head.

PHLEGETHON: *See Rivers.*

PHOSPHOR: Morning star.

PHRIXOS: Brother of Helle; carried by ram of Golden Fleece to Colchis.

PIRITHOÜS: Son of Ixion; friend of Theseus; tried to carry off Persephone from Hades; bound to enchanted rock by Pluto.

PLEIADES: Alcyone, Celaeno, Electra, Maia, Merope, Sterope or Asterope, Taygeta; seven daughters of Atlas; transformed into heavenly constellation, of which six stars are visible (Merope is said to have hidden in shame for loving a mortal).

PLUTO (DIS): God of Hades; brother of Zeus.

PLUTUS: God of wealth.

POLLUX: *See Dioscuri.*

POLYMNIA: *See Muses.*

POLYNICES: Son of Oedipus; he and his brother Eteocles killed each other; burial rite, forbidden by Creon, performed by his sister Antigone.

POLYPHEMUS: Cyclops; devoured six of Odysseus' men; blinded by Odysseus.

POLYXENA: Daughter of Priam; betrothed to Achilles, whom Paris slew at their betrothal; sacrificed to shade of Achilles.

POMONA: Roman goddess of fruits.

PONTUS: Sea god; son of Gaea.

POSEIDON (NEPTUNE): God of sea; brother of Zeus.

PRIAM: King of Troy; husband of Hecuba; ransomed Hector's body from Achilles; slain by Neoptolemus.

PRIAPUS: God of regeneration.

PROCRIS: Wife of Cephalus, who accidentally slew her.

PROCRUSTES: Giant; stretched or cut off legs of victims to make them fit iron bed; slain by Theseus.

PROETUS: Husband of Anteia; sent Belerophon to Iobates to be put to death.

PROTEUS: Sea god; assumed various shapes when called on to prophesy.

PSYCHE: Beloved of Eros; punished by jealous Aphrodite; made immortal and united with Eros.

PYGMALION: King of Cyprus; carved ivory statue of maiden which Aphrodite gave life as Galatea.

PYRAMUS: Babylonian youth; made love to Thisbe through hole in wall; thinking Thisbe slain by lion, killed himself.

PYRRHUS: *See Neoptolemus.*

PYTHON: Serpent born from slime left by Deluge; slain by Apollo.

QUIRINUS: Roman war god.

REMUS: Brother of Romulus; slain by him.

RHADAMANTHUS: One of three judges of dead in Hades; son of Zeus and Europa.

RHEA (OPS): Daughter of Uranus and Gaea; wife of Cronus; mother of Zeus; identified with Cybele.

RIVERS OF UNDERWORLD: Acheron (woe), Cocytus (wailing), Lethe (forgetfulness), Phlegethon (fire), Styx (across which souls of dead were ferried by Charon).

ROMULUS: Founder of Rome; he and Remus suckled in infancy by she-wolf; slew Remus; deified by Romans.

SARPEDON: King of Lycia; son of Zeus and Europa; slain by Patroclus at Troy.

SATURN: *See Cronus.*

SATYRS: Hoofed demigods of woods and fields; companions of Dionysus.

SCIRON: Robber; forced strangers to wash his feet, then hurled them into sea where tortoise devoured them; slain by Theseus.

SCYLLA: Female monster inhabiting rock opposite Charybdis; menaced passing sailors.

SELENE: Goddess of moon.

SEMELE: Daughter of Cadmus; mother by Zeus of Dionysus; demanded Zeus appear before her in all his splendor and was destroyed by his lightnings.

SIBYLS: Various prophetesses; most famous, Cumaeen sibyl, accompanied Aeneas into Hades.

SILENI: Minor woodland deities similar to satyrs (singular: silenus). Sometimes Silenus refers to eldest of satyrs, son of Hermes or of Pan.

SILVANUS: Roman god of woods and fields.

SINIS: Giant; bent pines, by which he hurled victims against side of mountain; slain by Theseus.

SIRENS: Minor deities who lured sailors to destruction with their singing.

SISYPHUS: King of Corinth; condemned in Tartarus to roll huge stone to top of hill; it always rolled back down again.

SOL: *See Helios.*

SOMNUS: *See Hypnos.*

SPHINX: Monster of Thebes; killed those who could not answer her riddle*; slain by Oedipus. Name also refers to other monsters having body of lion, wings, and head and bust of woman.

STEROPE: *See Pleiades.*

STHENO: *See Gorgons.*

STYX: *See Rivers.*

*What animal goes on 4 feet in morning, 2 at noon, 3 at night? Answer: Man (crawls when child, walks when adult, uses staff when old).

SYMPLEGADES: Clashing rocks at entrance to Black Sea; Argo passed through, causing them to become forever fixed.

SYRINX: Nymph pursued by Pan; changed to reeds, from which he made his pipes.

TANTALUS: Cruel king; father of Pelops and Niobe; condemned in Tartarus to stand chin-deep in lake surrounded by fruit branches; as he tried to eat or drink, water or fruit always receded.

TARTARUS: Underworld below Hades; often refers to Hades.

TAYGETA: *See* Pleiades.

TELEMACHUS: Son of Odysseus; made unsuccessful journey to find his father.

TELLUS: Roman goddess of earth.

TERMINUS: Roman god of boundaries and landmarks.

TERPSICHOE: *See* Muses.

TERRA: Roman earth goddess.

THALIA: *See* Graces; Muses.

THANATOS (MORS): God of death.

THEMIS: Titan goddess of laws of physical phenomena; daughter of Uranus; mother of Prometheus.

THESEUS: Son of Aegeus; slew Minotaur; married and deserted Ariadne; later married Phaedra.

THISBE: Beloved of Pyramus; killed herself at his death.

Norse Mythology

AESIR: Chief gods of Asgard.

ANDVARI: Dwarf; robbed of gold and magic ring by Loki.

ANGERBOTH (Angrbotha): Giantess; mother by Loki of Fenrir, Hel, and Midgard serpent.

ASGARD (Asgarth): Abode of gods.

ASK (Aske, Askr): First man; created by Odin, Hoenir, and Lothur.

ASYNJUR: Goddesses of Asgard.

ATLI: Second husband of Gudrun; invited Gunnar and Hogni to his court, where they were slain; slain by Gudrun.

AUDHUMLA (Audhumbia): Cow that nourished Ymir; created Buri by licking ice cliff.

BALDER (Baldr, Baldur): God of light, spring, peace, joy; son of Odin; slain by Hoth at instigation of Loki.

BIFROST: Rainbow bridge connecting Midgard and Asgard.

BRAGI (Brage): God of poetry; husband of Ithunn.

BRANSTOCK: Great oak in hall of Volungs; into it, Odin thrust Gram, which only Sigmund could draw forth.

BRYNHILD: Valkyrie; wakened from magic sleep by Sigurd; married Gunnar;

THYESTES: Brother of Atreus; Atreus killed three of his sons and served them to him at banquet.

TIRESIAS: Blind soothsayer of Thebes.

TISIPHONE: *See* Furies.

TITANS: Early gods from which Olympian gods were derived; children of Uranus and Gaea.

TITHONUS: Mortal loved by Eos; changed into grasshopper.

TRITON: Demigod of sea; son of Poseidon.

TURNUS: King of Rutuli in Italy; betrothed to Lavinia; slain by Aeneas.

ULYSSES: *See* Odysseus.

URANIA: *See* Muses.

URANUS: Personification of Heaven; husband of Gaea; father of Titans; dethroned by his son Cronus.

VENUS: *See* Aphrodite.

VERTUMNUS: Roman god of fruits and vegetables; husband of Pomona.

VESTA: *See* Hestia.

VULCAN: *See* Hephaestus.

WINDS: Aeolus (keeper of winds), Boreas (Aquilo) (north wind), Eurus (east wind), Notus (Auster) (south wind), Zephyrus (Favonius) (west wind).

ZEPHYRUS: *See* Winds.

ZEUS (JUPITER): Chief of Olympian gods; son of Cronus and Rhea; husband of Hera.

instigated death of Sigurd; killed herself and was burned on pyre beside Sigurd.

BUR (Bor): Son of Buri; father of Odin, Hoenir, and Lothur.

BURI (Bori): Progenitor of gods; father of Bur; created by Audhumla.

EMBLA: First woman; created by Odin, Hoenir, and Lothur.

FAFNIR: Son of Rodmar, whom he slew for gold in Otter's skin; in form of dragon, guarded gold; slain by Sigurd.

FENRIR: Wolf; offspring of Loki; swallows Odin at Ragnarok and is slain by Vittharr.

FORSETI: Son of Balder.

FREY (Freyr): God of fertility and crops; son of Njorth; originally one of Vanir.

FREYA (Freyja): Goddess of love and beauty; sister of Frey; originally one of Vanir.

FRIGG (Frigga): Goddess of sky; wife of Odin.

GARM: Watchdog of Hel; slays, and is slain by, Tyr at Ragnarok.

GIMLE: Home of blessed after Ragnarok.

GIUKI: King of Nibelungs; father of Gunnar, Hogni, Guttorm, and Gudrun.

GLATHSHEIM (Gladshelm): Hall of gods in Asgard.

GRAM (meaning "Angry"): Sigmund's sword; rewelded by Regin; used by Sigurd to slay Fafnir.

GREYFELL: Sigmund's horse; descended from Sleipnir.

GRIMHILD: Mother of Gudrun; administered magic potion to Sigurd which made him forget Brynhild.

GUDRUN: Daughter of Giuki; wife of Sigurd; later wife of Atli and Jonakr.

GUNNAR: Son of Giuki; in his semblance Sigurd won Brynhild for him; slain at hall of Atli.

GUTTORM: Son of Giuki; slew Sigurd at Brynhild's request.

HEIMDALL (Heimdallr): Guardian of Asgard.

HEL: Goddess of dead and queen of underworld; daughter of Loki.

HIORDIS: Wife of Sigmund; mother of Sigurd.

HOENIR: One of creators of Ask and Embla; son of Bur.

HOGNI: Son of Giuki; slain at hall of Atli.

HOTH (Hoder, Hodur): Blind god of night and darkness; slayer of Balder at instigation of Loki.

ITHUNN (Ithun, Iduna): Keeper of golden apples of youth; wife of Bragi.

JONAKR: Third husband of Gudrun.

JORMUNREK: Slayer of Swanhild; slain by sons of Gudrun.

JOTUNNHEIM (Jotunheim): Abode of giants.

LIF and **LIFTHRASIR**: First man and woman after Ragnarok.

LOKI: God of evil and mischief; instigator of Balder's death.

LOTHUR (Lodur): One of creators of Ask and Embla.

MIDGARD (Midgarth): Abode of mankind; the earth.

MIDGARD SERPENT: Sea monster; offspring of Loki; slays, and is slain by, Thor at Ragnarok.

MIMIR: Giant; guardian of well in Jotunheim at root of Yggdrasill; knower of past and future.

MJOLLNIR: Magic hammer of Thor.

NAGLFAR: Ship to be used by giants in attacking Asgard at Ragnarok; built from nails of dead men.

NANNA: Wife of Balder.

NIBELUNGS: Dwellers in northern kingdom ruled by Giuki.

NIFLHEIM (Nifelheim): Outer region of cold and darkness; abode of Hel.

NJORTH: Father of Frey and Freya; originally one of Vanir.

NORNS: Demigoddesses of fate; Urth (Urdur) (Past), Verthandi (Verdandi) (Present), Skuld (Future).

ODIN (Othin): Head of Aesir; creator of world with Vili and Ve; equivalent to Woden (Wotan, Wotan) in Teutonic mythology.

OTTER: Son of Rodmar; slain by Loki; his skin filled with gold hoard of Andvari to appease Rodmar.

RAGNAROK: Final destruction of present world in battle between gods and giants; some minor gods will survive, and Lif and Lifthrásir will repeople world.

REGIN: Blacksmith; son of Rodmar; foster-father of Sigurd.

RERIR: King of Huns; son of Sigi.

RODMAR: Father of Regin, Otter, and Fafnir; demanded Otter's skin be filled with gold; slain by Fafnir, who stole gold.

SIF: Wife of Thor.

SIGGEIR: King of Goths; husband of Signy; he and his sons slew Volsung and his sons, except Sigmund; slain by Sigmund and Sinfliotli.

SIGI: King of Huns; son of Odin.

SIGMUND: Son of Volsung; brother of Signy, who bore him Sinfliotli; husband of Hiordis, who bore him Sigurd.

SIGNY: Daughter of Volsung; sister of Sigmund; wife of Siggeir; mother by Sigmund of Sinfliotli.

SIGURD: Son of Sigmund and Hiordis; awakened Brynhild from magic sleep; married Gudrun; slain by Guttorm at instigation of Brynhild.

SIGYN: Wife of Loki.

SINFLOTLI: Son of Sigmund and Signy.

SKULD: See Norns.

SLEIPNIR (Sleipner): Eight-legged horse of Odin.

SURT (Surtr): Fire demon; slays Frey at Ragnarok.

SVARTALFAHEIM: Abode of dwarfs.

SWANHILD: Daughter of Sigurd and Gudrun; slain by Jormunrek.

THOR: God of thunder; oldest son of Odin; equivalent to Germanic deity Donar.

TYR: God of war; son of Odin; equivalent to Tiu in Teutonic mythology.

ULL (Ullr): Son of Sif; stepson of Thor.

URTH: See Norns.

VALHALLA (Valhall): Great hall in Asgard where Odin received souls of heroes killed in battle.

VALI: Odin's son; Ragnarok survivor.

VALKYRIES: Virgins, messengers of Odin, who selected heroes to die in battle and took them to Valhalla; generally considered as nine in number.

VANIR: Early race of gods; three survivors, Njorth, Frey, and Freya, are associated with Aesir.

VE: Brother of Odin; one of creators of world.

VERTHANDI: See Norns.

VILI: Brother of Odin; one of creators of world.

VINGOLF: Abode of goddesses in Asgard.

VITHARR (Vithar): Son of Odin; survivor of Ragnarok.

VOLSUNG: Descendant of Odin, and

father of Signy, Sigmund; his descendants were called Volsungs.

YGGDRASIL: Giant ash tree springing from body of Ymir and supporting universe; its roots extended to Asgard, Jotunheim, and Nifheim.

YMR (Ymer): Primeval frost giant killed by Odin, Vili, and Ve; world created from his body; also, from his body sprang Yggdrasil.

Egyptian Mythology

AARU: Abode of the blessed dead.

AMEN (Amon, Ammon): One of chief Theban deities; united with sun god under form of Amen-Ra.

AMENTI: Region of dead where souls were judged by Osiris.

ANUBIS: Guide of souls to Amenti; son of Osiris; jackal-headed.

APIS: Sacred bull, an embodiment of Ptah; identified with Osiris as Osiris-Apis or Serapis.

GEB (Keb, Seb): Earth god; father of Osiris; represented with goose on head.

HATHOR (Athor): Goddess of love and mirth; cow-headed.

HORUS: God of day; son of Osiris and Isis; hawk-headed.

ISIS: Goddess of motherhood and fertility; sister and wife of Osiris.

KHEPERA: God of morning sun.

KHNEMU (Khnum, Chnuphis, Chnemu, Chnum): Ram-headed god.

KHONSU (Khensu, Khuns): Son of Amen and Mut.

MENTU (Ment): Solar deity, sometimes considered god of war; falcon-headed.

MIN (Khem, Chem): Principle of physical life.

MUT (Maut): Wife of Amen.

NEPHTHYS: Goddess of the dead; sister and wife of Set.

NU: Chaos from which world was created, personified as a god.

NUT: Goddess of heavens; consort of Geb.

OSIRIS: God of underworld and judge of dead; son of Geb and Nut.

PTAH (Phtha): Chief deity of Memphis.

RA: God of the Sun, the supreme god; son of Nut; Pharaohs claimed descent from him; represented as lion, cat, or falcon.

SERAPIS: God uniting attributes of Osiris and Apis.

SET (Seth): God of darkness or evil; brother and enemy of Osiris.

SHU: Solar deity; son of Ra and Hathor.

TEM (Atmu, Atum, Tum): Solar deity.

THOTH (Dhouti): God of wisdom and magic; scribe of gods; ibis-headed.

Rulers of England and Great Britain

Saxons¹

Name	Born	Ruled ²
Egbert ³	c. 775	828-839
Ethelwulf	?	839-858
Ethelbald	?	858-860
Ethelbert	?	860-866
Ethelred I	?	866-871
Alfred the Great	849	871-899
Edward the Elder	c. 870	899-924
Athelstan	895	924-939
Edmund I the Deed-doer ..	921	939-946
Edred	c. 925	946-955
Edwy the Fair	c. 943	955-959
Edgar the Peaceful	943	959-975
Edward the Martyr	c. 962	975-979
Ethelred II the Unready ..	868	979-1016
Edmund II Ironside	c. 993	1016-1016

Danes

Canute	995	1016-1035
Harold I Harefoot	c.1016	1035-1040
Hardecnut	c.1018	1040-1042

Saxons

Edward the Confessor	c.1004	1042-1066
Harold II	c.1020	1066-1066

House of Normandy

Name	Born	Ruled ²
William I the Conqueror ..	1027	1066-1087
William II Rufus	c.1056	1087-1100
Henry I Beauclerc	1068	1100-1135
Stephen of Blois	c.1100	1135-1154

House of Plantagenet

Henry II	1133	1154-1189
Richard I Coeur de Lion ..	1157	1189-1199
John Lackland	1167	1199-1216
Henry III	1207	1216-1272
Edward I Longshanks	1239	1272-1307
Edward II	1284	1307-1327
Edward III	1312	1327-1377
Richard II	1367	1377-1399 ⁴

House of Lancaster

Henry IV Bolingbroke	1367	1399-1413
Henry V	1387	1413-1422
Henry VI	1421	1422-1461 ¹³

House of York

Edward IV	1442	1461-1483 ¹³
Edward V	1470	1483-1483
Richard III	1452	1483-1485

House of Tudor

Name	Born	Rule ²
Henry VII	1457	1485-1509
Henry VIII	1491	1509-1547
Edward VI	1537	1547-1553
Jane (Lady Jane Grey) ⁵ ..	1537	1553-1553
Mary I ("Bloody Mary") ..	1516	1553-1558
Elizabeth I	1533	1558-1603

House of Stuart

James I ⁶	1566	1603-1625
Charles I	1600	1625-1649

Commonwealth

Council of State .....	.....	1649-1653
Oliver Cromwell ⁷	1599	1653-1658
Richard Cromwell ⁷	1626	1658-1659 ⁸

Restoration of House of Stuart

Charles II	1630	1660-1685
James II	1633	1685-1688 ⁹

¹ Dates for Saxon Kings are still subjects of controversy. ² Year of end of rule is also that of death, unless otherwise indicated. ³ Became King of West Saxons in 802; considered (from 828) first King of all England. ⁴ Died 1400. ⁵ Nominal Queen for 9 days; not counted as Queen by some authorities. She was beheaded in 1554.

Restoration of House of Stuart (cont'd)

Name	Born	Rule ²
William III ¹⁰	1650	1689-1702
Mary II ¹⁰	1662	1689-1694
Anne	1665	1702-1714

House of Hanover

George I	1660	1714-1727
George II	1683	1727-1760
George III	1738	1760-1820
George IV	1762	1820-1830
William IV	1765	1830-1837
Victoria	1819	1837-1901

House of Saxe-Coburg¹¹

Edward VII	1841	1901-1910
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House of Windsor¹¹

George V	1865	1910-1936
Edward VIII	1894	1936-1936 ¹²
George VI	1895	1936-1952
Elizabeth II	1926	1952-

⁶ Ruled in Scotland as James VI (1567-1625). ⁷ Lord Protector. ⁸ Died 1712. ⁹ Died 1701. ¹⁰ Joint rulers 1689-1694. ¹¹ Names changed from Saxe-Coburg to Windsor in 1917. ¹² Has been known since his abdication as the Duke of Windsor. ¹³ Henry VI reigned again briefly 1470-71.

British Prime Ministers Since 1770

Name	Term
Lord North (Tory)	1770-1782
Marquis of Rockingham (Whig) ..	1782-1782
Earl of Shelburne (Whig)	1782-1783
Duke of Portland (Coalition) ..	1783-1783
William Pitt, the Younger (Tory) ..	1783-1801
Henry Addington (Tory)	1801-1804
William Pitt, the Younger (Tory) ..	1804-1806
Baron Grenville (Whig)	1806-1807
Duke of Portland (Tory)	1807-1809
Spencer Perceval (Tory)	1809-1812
Earl of Liverpool (Tory)	1812-1827
George Canning (Tory)	1827-1827
Viscount Goderich (Tory)	1827-1828
Duke of Wellington (Tory)	1828-1830
Earl Grey (Whig)	1830-1834
Viscount Melbourne (Whig)	1834-1834
Sir Robert Peel (Tory)	1834-1835
Viscount Melbourne (Whig)	1835-1841
Sir Robert Peel (Tory)	1841-1846
Earl Russell (Whig)	1846-1852
Earl of Derby (Tory)	1852-1852
Earl of Aberdeen (Coalition) ..	1852-1855
Viscount Palmerston (Liberal) ..	1855-1858
Earl of Derby (Conservative) ..	1858-1859
Viscount Palmerston (Liberal) ..	1859-1865
Earl Russell (Liberal)	1865-1866
Earl of Derby (Conservative) ..	1866-1868
Benjamin Disraeli (Conservative) ..	1868-1868
William E. Gladstone (Liberal) ..	1868-1874
Benjamin Disraeli (Conservative) ..	1874-1880
William E. Gladstone (Liberal) ..	1880-1885

Name	Term
Marquis of Salisbury (Conservative)	1885-1886
William E. Gladstone (Liberal) ...	1886-1886
Marquis of Salisbury (Conservative)	1886-1892
William E. Gladstone (Liberal) ..	1892-1894
Earl of Rosebery (Liberal)	1894-1895
Marquis of Salisbury (Conservative)	1895-1902
Earl Balfour (Conservative)	1902-1905
Sir H. Campbell-Bannerman (Liberal)	1905-1908
Herbert H. Asquith (Liberal)	1908-1915
Herbert H. Asquith (Coalition) ..	1915-1916
David Lloyd George (Coalition) ..	1916-1922
Andrew Bonar Law (Conservative) ..	1922-1923
Stanley Baldwin (Conservative) ..	1923-1924
James Ramsay MacDonald (Labour)	1924-1924
Stanley Baldwin (Conservative) ..	1924-1929
James Ramsay MacDonald (Labour)	1929-1931
James Ramsay MacDonald (Coalition)	1931-1935
Stanley Baldwin (Coalition)	1935-1937
Neville Chamberlain (Coalition) ..	1937-1940
Winston Churchill (Coalition) ...	1940-1945
Clement R. Attlee (Labour)	1945-1951
Sir Winston Churchill (Conservative)	1951-1955
Sir Anthony Eden (Conservative) ..	1955-1957
Harold Macmillan (Conservative) ..	1957-

Birthstones

Source: Jewelry Industry Council

January	Garnet
February	Amethyst
March	Aquamarine or Bloodstone
April	Diamond
May	Emerald
June	Pearl, Alexandrite or Moonstone

July	Ruby
August	Peridot or Sardonyx
September	Sapphire
October	Opal or Tourmaline
November	Topaz
December	Turquoise or Zircon

Rulers of France

Carolingian Dynasty

Name	Born	Ruled ¹
Pepin the Short	c. 714	751-768
Charlemagne ²	742	768-814
Louis I the Debonair ³	778	814-840
Charles I the Bald ⁴	823	840-877
Louis II the Stammerer	846	877-879
Louis III ⁵	c. 863	879-882
Carloman ⁵	?	879-884
Charles II the Fat ⁶	839	884-887 ⁷
Eudes (Odo), Count of Paris	?	888-898
Charles III the Simple ⁸	879	893-923 ⁹
Robert I ¹⁰	c. 865	922-923
Rudolf (Raoul), Duke of Burgundy	?	926-936
Louis IV d'Outremer	c. 921	936-954
Lothair	941	954-986
Louis V the Sluggard	c. 967	986-987

Capetian Dynasty

Hugh Capet	c. 940	987-996
Robert II the Pious ¹¹	c. 970	996-1031
Henry I	1008	1031-1060
Philip I	1052	1060-1108
Louis VI the Fat	1081	1108-1137
Louis VII the Young	c.1121	1137-1180
Philip II (Philip Augustus)	1165	1180-1223
Louis VIII the Lion	1187	1223-1226
Louis IX (St. Louis)	1214	1226-1270
Philip III the Bold	1245	1270-1285
Philip IV the Fair	1268	1285-1314
Louis X the Quarreler	1289	1314-1316
John I	1316	1316-1316
Philip V the Tall	1294	1316-1322
Charles IV the Fair	1294	1322-1328

House of Valois

Philip VI	1293	1328-1350
John II the Good	1319	1350-1364
Charles V the Wise	1337	1364-1380
Charles VI the Well-Beloved	1368	1380-1422
Charles VII	1403	1422-1461
Louis XI	1423	1461-1483
Charles VIII	1470	1483-1498
Louis XII the Father of the People	1462	1498-1515
Francis I	1494	1515-1547
Henry II	1519	1547-1559
Francis II	1544	1559-1560
Charles IX	1550	1560-1574
Henry III	1551	1574-1589

House of Bourbon

Henry IV of Navarre	1553	1589-1610
Louis XIII	1601	1610-1643
Louis XIV the Great	1638	1643-1715
Louis XV the Well-Beloved	1710	1715-1774

House of Bourbon (cont'd)

Name	Born	Ruled ¹
Louis XVI	1754	1774-1792 ¹⁸
Louis XVII (Louis Charles de France) ¹³	1785	1793-1795
First Republic		
National Convention	....	1792-1795
Directory (Directoire)	....	1795-1799
Consulate		
Napoleon Bonaparte ¹⁴	1769	1799-1804
First Empire		
Napoleon I	1769	1804-1815 ¹⁵
Restoration of House of Bourbon		
Louis XVIII le Désiré	1755	1814-1824
Charles X	1757	1824-1830 ¹⁶

Bourbon-Orleans line

Louis Philippe ("Citizen King")	1773	1830-1848 ¹⁷
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Second Republic

Louis Napoleon ¹⁸	1808	1848-1852
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Second Empire

Napoleon III (Louis Napoleon)	1808	1852-1871 ¹⁹
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Third Republic

Louis Adolphe Thiers ²⁰	1797	1871-1873 ²¹
Marie E. P. M. de MacMahon ²⁰	1808	1873-1879 ²²
François P. J. Grévy ²⁰	1807	1879-1887 ²³
Sadi Carnot ²⁰	1837	1887-1894
Jean Casimir-Périer ²⁰	1847	1894-1895 ²⁴
François Félix Faure ²⁰	1841	1895-1899
Émile Loubet ²⁰	1838	1899-1906 ²⁵
Clement Armand Fallières ²⁰	1841	1906-1913 ²⁶
Raymond Poincaré ²⁰	1860	1913-1920 ²⁷
Paul E. L. Deschanel ²⁰	1856	1920-1920 ²⁸
Alexandre Millerand ²⁰	1859	1920-1924 ²⁹
Gaston Doumergue ²⁰	1863	1924-1931 ³⁰
Paul Doumer ²⁰	1857	1931-1932
Albert Lebrun ²⁰	1871	1932-1940 ³¹

Vichy Government

Henri Philippe Pétain ³²	1856	1940-1944 ³³
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Provisional Government

Charles de Gaulle ³⁴	1890	1944-1946 ³⁵
Félix Guin ³⁴	1884	1946-1946 ³⁶
Georges Bidault ³⁴	1899	1946-1947 ³⁶

Fourth Republic

Vincent Auriol ³⁰	1884	1947-1954 ³⁵
René Coty ³⁰	1882	1954-

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Crowned Emperor of the West in 800. ³ Holy Roman Emperor 814-840. ⁴ Holy Roman Emperor 875-877 as Charles II. ⁵ Ruled jointly 879-882. ⁶ Holy Roman Emperor 881-887 as Charles III. ⁷ Died 888. ⁸ King 893-898 in opposition to Eudes. ⁹ Died 929. ¹⁰ Not counted in regular line of Kings of France by some authorities. Elected by nobles but killed in Battle of Soissons. ¹¹ Sometimes called Robert I. ¹² Executed 1793. ¹³ Titular King only. He died in prison according to official reports, but many pretenders appeared during the Bourbon restoration. ¹⁴ As First Consul, Napoleon

held the power of government. In 1804, he became Emperor. ¹⁵ Abdicated first time June 1814. Re-entered Paris Mar. 1815, after escape from Elba; Louis XVIII fled to Ghent. Abdicated second time June 1815. He named as his successor his son, Napoleon II, who was not acceptable to the Allies. He died 1821. ¹⁶ Died 1836. ¹⁷ Died 1850. ¹⁸ President; became Emperor in 1852. ¹⁹ Died 1873. ²⁰ President. ²¹ Died 1877. ²² Died 1893. ²³ Died 1891. ²⁴ Died 1907. ²⁵ Died 1929. ²⁶ Died 1931. ²⁷ Died 1934. ²⁸ Died 1922. ²⁹ Died 1942. ³⁰ Died 1937. ³¹ Died 1950. ³² Chief of State. ³³ Died 1951. ³⁴ Interim President. ³⁵ Still alive.

Rulers of Germany and Prussia

Kings of Prussia

Name	Born	Ruled ¹
Frederick I ²	1657	1701-1713
Frederick William I	1688	1713-1740
Frederick II the Great	1712	1740-1786
Frederick William II	1744	1786-1797
Frederick William III	1770	1797-1840
Frederick William IV	1795	1840-1861
William I	1797	1861-1871 ³

Emperors of Germany

William I	1797	1871-1888
Frederick III	1831	1888-1888
William II	1859	1888-1918 ⁴

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Was Elector of Brandenburg (1688-1701) as Frederick III. ³ Became Emperor of Germany

Heads of the Reich

Name	Born	Ruled ¹
Friedrich Ebert ⁵	1871	1919-1925
Paul von Hindenburg ⁵	1847	1925-1934
Adolf Hitler ^{6,7}	1889	1934-1945
Karl Doenitz ⁸	1891	1945-1945 ⁸

German Federal Republic (Western)

Theodor Heuss ⁵	1884	1949-
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German Democratic Republic (Eastern)

Wilhelm Pieck ⁵	1876	1949-
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in 1871. ⁴ Died 1941. ⁵ President. ⁶ Führer. ⁷ Named Chancellor by President Hindenburg in 1933. ⁸ Still alive.

Rulers of Russia Since 1533

Name	Born	Ruled ¹
Ivan IV the Terrible	1530	1533-1584
Theodore I	1557	1584-1598
Boris Godunov	c.1551	1598-1605
Theodore II	1589	1605-1605
Demetrius I ²	?	1605-1606
Basil IV Shuiski	?	1606-1610 ³
"Time of Troubles"		1610-1613
Michael Romanov	1596	1613-1645
Alexis I	1629	1645-1676
Theodore III	1656	1676-1682
Ivan V ⁴	1666	1682-1689 ⁵
Peter I the Great ⁴	1672	1682-1725
Catherine I	c.1684	1725-1727
Peter II	1715	1727-1730
Anna	1693	1730-1740
Ivan VI	1740	1740-1741 ⁶
Elizabeth	1709	1741-1762
Peter III	1728	1762-1762

¹ Year of end of rule is also that of death, unless otherwise indicated. ² Also known as Pseudo-Demetrius. ³ Died 1612. ⁴ Ruled jointly until 1689, when Ivan was

Name	Born	Ruled ¹
Catherine II the Great	1729	1762-1796 ¹
Paul I	1754	1796-1801
Alexander I	1777	1801-1825
Nicholas I	1796	1825-1855
Alexander II	1818	1855-1881
Alexander III	1845	1881-1894
Nicholas II	1868	1894-1917 ²

Provisional Government

Prince Georgi Lvov ⁸	1861	1917-1917 ⁹
Alexander Kerensky ⁸	1881	1917-1917 ¹⁰

U.S.S.R.

Nikolai Lenin ⁸	1870	1917-1924
Joseph Stalin ¹¹	1879	1924-1953
Georgi M. Malenkov ⁸	1902	1953-1955 ¹⁰
Nikolai A. Bulganin ⁸	1895	1955-1958 ¹⁰
Nikita S. Khrushchev ⁸	1894	1958-

deposed. ⁵ Died 1696. ⁶ Died 1764. ⁷ Killed 1918. ⁸ Premier. ⁹ Died 1925. ¹⁰ Still alive. ¹¹ General Secretary of Communist party; Premier 1941-53.

Animal Names: Male, Female and Young

Source: Grace Davall, N.Y. Zoological Society.

Animal	Male	Female	Young	Animal	Male	Female	Young
Ass	Jack	Jenny	Colt	Goose	Gander	Goose	Gosling
Bear	He-bear	She-bear	Cub	Horse	Stallion	Mare	Foal
Cat	Tom	Tabby ¹	Kitten	Lion	Lion	Lioness	Cub
Cattle	Bull	Cow	Calf	Rabbit	Buck	Doe	
Chicken	Rooster	Hen	Chick	Sheep	Ram	Ewe	Lamb
Deer	Buck	Doe	Fawn	Swan	Cob	Pen	Cygnets
Dog	Dog	Bitch	Pup	Swine	Boar	Sow	Shoat ²
Duck	Drake	Duck	Duckling	Tiger	Tiger	Tigress	Cub
Elephant	Bull	Cow	Calf	Whale	Bull	Cow	Calf
Fox	Dog	Vixen	Cub	Wolf	Dog	Bitch	Cub ³

¹ Or queen. ² Or piglet. ³ Or pup or whelp.

Mason and Dixon's Line

Mason and Dixon's Line (often called the Mason-Dixon Line) is the boundary between Pennsylvania and Maryland, running at a north latitude of 39°43'19.11". The greater part of it was surveyed from 1763-67 by Charles Mason and Jeremiah

Dixon, English astronomers who had been appointed to settle a dispute between the colonies. As the line was partly the boundary between the free and the slave states, it has come to signify the division between the North and the South.

WORD SECTION

New and Newly Important Words and Meanings
Words Frequently Misspelled . . . Forms of Address

Prepared by

G. & C. MERRIAM CO., Springfield, Mass.

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Webster's New Collegiate Dictionary

New and Newly Important Words and Meanings

Note: This is a selected list of words, from a wide variety of subject areas, that have become of fairly recent general interest. Many, as *radar*, *colorcast*, and *dynel*, are new in the sense that they were recently introduced into the language. Some, as *omnibus*, *libretto*, and *alligator*, are recently acquired new or extended senses of well-established terms. Others, as *rocket ship*, *snollygoster* and *fission*, are terms that have been in limited use within certain circles for a considerable time but have only recently become generally used and known. It would be out of keeping with the spirit of a list like this and beyond the space available to treat the entries in formal dictionary fashion. In general, only the commonest spellings and the most basic and important of the new senses have been given.

- ABSTRACT:** Characterized by designs in which an artist, using lines or blocks of color rather than pictures of actual objects, attempts to set forth his feelings or ideas.
- ACETATE RAYON:** A rayon fiber made with cellulose acetate.
- ACK-ACK:** An anti-aircraft gun; also, the fire of such a gun.
- ACRONYM:** A word formed from the initial letters or the first and last syllables of the words in a compound (*jato* from *jet* assisted take-off; *motel* from *motorists' hotel*).
- ACTH:** A compound obtained from the pituitary gland, used especially in the treatment of arthritis.
- ACTINOMYCIN:** An antibiotic isolated from certain soil bacteria.
- ADDITIVE:** Any substance which, when added to another product, such as gasoline or a storage battery, is supposed to make it more powerful or longer-lasting.
- AEROEMBOLISM:** An abnormal bodily condition, called also *air bends*, due to the formation of nitrogen bubbles in the blood and spinal fluid brought about by rapid ascent into high altitudes.
- AGITPROP:** Serving as a means for spreading propaganda intended to promote militancy among the common people;—applied originally to pro-Communist activities.
- AIRLIFT:** A supply line operated by aircraft.
- AIRSTRIPE:** A hard-surfaced runway for the take-off and landing of aircraft; also, a portable runway made of steel sheets.
- ALCOMETER:** A device for detecting drunkenness by measuring the amount of alcohol in a sample of exhaled air.
- ALERT:** A signal to warn of danger, as from hostile aircraft; also, the period of time in which the signal is in effect.
- ALLIGATOR:** A flat-bottomed, armored military vehicle for use on land or water.
- ALL-OUT:** Making use of all available power and resources (as, an *all-out* effort).
- AMPLITUDE MODULATION or AM:** A system of radio broadcasting in which the amplitude of the carrier wave is modulated in accordance with the form of the sound or signal wave.
- AMTRAC:** An amphibious tractor, used chiefly as a military vehicle.
- ANGLE:** A special approach or technique for achieving an end, as for writing a news story or promoting an interest.
- ANTIBIOTIC:** A substance produced by a living organism, especially by a bacterium or fungus, that is used to kill or stop the growth of disease germs.
- ANTIHISTAMINE:** An agent used in the prevention or treatment of allergic reactions.
- AQUACADE:** An elaborate water show consisting of exhibitions of swimming, diving, and acrobatics, accompanied by music.
- ARENA THEATER = THEATRE-IN-THE-ROUND.**
- ARTIFICIAL INSEMINATION:** Introduction of semen into the genital tract of a female animal by other than the natural means.
- ASTRODOME:** A transparent dome on the upper surface of an airplane from which the navigator makes celestial observations.
- ATEBRIN:** An antimalarial drug, quinacrine dihydrochloride.
- ATOMIC BOMB, ATOM BOMB, or A-BOMB:** A bomb with violent explosive power that is due to a sudden release of atomic energy.
- ATOMIC COCKTAIL:** A radioactive substance such as sodium iodide, dissolved in water and given as a drink to cancer patients.
- AUDIO:** Pertaining to or used in the transmission or reception of sound in TV.

AUDIOPHILE: One who is enthusiastic about sound, especially music from high-fidelity broadcasts or recordings.

AUDIOVISUAL: Involving both hearing and seeing (as, *audiovisual* education uses films, slides, phonograph records, and the like, to supplement instruction).

AUREOMYCIN: An antibiotic isolated from a soil microorganism.

AUSTERITY: A severe or enforced economy characterized by a lack of luxuries (as, postwar *austerity* in Great Britain).

AUTOMATIC TRANSMISSION: Automotive transmission in which the gears are shifted automatically.

AUTOMATION: The substitution of machines or mechanical devices for human beings in a manufacturing process.

BABUSHKA: A triangular kerchief worn over the head and tied under the chin.

BABY SITTER: One who is hired, usually for a few hours, to care for children while the parents are absent from the home.

BALL-POINT PEN: A fountain pen in which the writing point is a tiny ball that rotates freely against an inking magazine.

BAMBOO CURTAIN: The military, political, and propaganda barrier isolating territory controlled by the Chinese Communists.

BANK: A place for storing a reserve supply;—occurs in such combinations as *blood bank*, *eye bank*, *bone bank*, *skin bank*.

BANKROLLER: One having a sizable bankroll or a ready and ample supply of funds.

BARBITURATE: One of a large group of drugs often used as sedatives or antispasmodics.

BARREL: To move at a high speed in a straight course;—used especially of vehicles.

BASIC ENGLISH: A copyrighted system intended to simplify the learning of English by the use of a vocabulary limited to the 850 most essential words.

BATHYTHERMOGRAPH: An instrument for recording the temperature variations of sea or fresh water according to depth.

BAZOOKA: A portable rocket-launcher, used chiefly as an antitank weapon.

BEACHHEAD: An area on an enemy shore which an advance force occupies and defends.

BEAM: A directional radio signal for guiding aircraft, audible as a continuous tone as long as the aircraft stays on course, but as a broken tone if it veers to the left or right.

BEBOP: A style of jazz with many notes to the measure, usually played loud and fast and characterized by changing of key and accenting of odd beats.

BELLYLAND: To land an airplane on the under side of its fuselage without using the landing gear.

BENTHOSCOPE: A steel sphere used for deep-sea diving and observation.

BETATRON: An apparatus in which electrons are accelerated to high speed and formed into beta rays for use in generating high-voltage X-rays or for nuclear bombardment.

BIG WHEEL, slang: An important, impressive person; sometimes one who only feels himself important.

BIKINI: A woman's two-piece bathing suit of abbreviated style.

BINAURAL SOUND: Sound recorded or transmitted by pairs of equipment in order to give the listener the effect of having heard the original with his own two ears.

BIOLOGICAL WARFARE: Warfare in which living organisms, especially disease germs, are used against human, animal, and plant life; also, warfare involving the use of synthetic chemicals against plants.

BIRD, slang: An enthusiast (as, a *bird* about music); also, any person thought to be odd or strange.

BITCH, slang: To gripe; to complain.

BLACK MARKET: Trade in violation of official controls or restrictions, especially those concerning price ceilings, rationing, and priorities; also, a market or group carrying on such trade.

BLISTER: A compartment, often covered by a transparent dome, that protrudes from the fuselage of an aircraft and is usually occupied by a gunner or observer.

BLITZ: A violent, swift military attack; also, any sudden, overpowering attack;—short for *blitzkrieg*.

BLOCKBUSTER: A huge, high-explosive demolition bomb, usually one weighing two, four, or six tons.

BLOODMOBILE: An automobile equipped for collecting blood from volunteer donors.

BLUEPRINT: A detailed plan for a project or program of action (as, a *blueprint* for mobilization).

BLUE RIBBON JURY: A panel of jurors selected for qualifications such as education or property ownership, that may be called to sit in complicated cases.

BOBBY SOCK: A girl's sock reaching above the ankle.

BOBBY SOXER: A young girl, especially one in the early teens;—from the wearing of bobby socks.

BOMB: A small container in which a liquid, as an insecticide, is held under pressure and released as a spray.

BOOBY TRAP: An explosive device concealed and attached to some harmless-looking object; also, any trap for the unsuspecting.

BOOGIE-WOOGIE: A style of playing blues on the piano, characterized by a persistent bass rhythm and elaborate treatments of a simple melody, often in contrary motion to the bass.

BOOKBURNING: Systematic destruction, usually by a government, of books believed to contain dangerous ideas; hence, the suppression of ideas.

BOOKMOBILE: A closed autotruck with shelves of books, which serves as a traveling library or bookstore.

BOOSTER: A device for strengthening radio or television signals in areas where the reception is weak.

BOP: Short for *bebop*; also, one fond of bebop.

BOTTLENECK: To delay progress; to hold up a process, especially at a critical point.

BOYS' TOWN: A farm or school for homeless or delinquent boys, organized like a town and governed by the boys themselves.

BRAINWASHING: The forcible replacement of one set of political ideas by another set, especially through indoctrination or mental torture.

BRASS: Military and naval officers of high rank or position, especially those in top commands.

BREAK: A short rest period, often one set aside from the working day.

BRIEF: To give final, last-minute instructions or information (as, to *brief* the crew of a bomber before a mission).

BROWNOUT: A dimming of street lights and various other outdoor lighting, chiefly to conserve fuel supplies.

BRUSHOFF: A curt or offhand dismissal (as, to give someone the *brushoff*).

BUDGIE: Short for *budgerigar*, the zebra parakeet.

BUILD-UP: Extremely favorable notice, as by the press or radio, designed to popularize a product, personality, or organization.

BUILT-IN: Functioning as a part of, but separately identifiable from, a given unit (as, *built-in* shelves); also, conditioned (as, a *built-in* reaction).

BULLDOZER: A tractor-driven machine with a broad, blunt horizontal blade or ram, used especially in road building and clearing land.

BUMP: To push (a person) out of his place in order to take it for oneself (as, to *bump* a man from his job).

BURGER: A sandwich usually made of a flat roll cut in half and filled either with hamburger or another food specified (as, *pork-burger* or *beefburger*).

BURP GUN: A machine pistol.

BUTADIENE: A colorless gas, made from petroleum and alcohol, used in the making of synthetic rubber.

BUY, slang: To accept; to agree to; to assent (as, to *buy* an idea or an argument).

BUZZ: To fly an airplane fast and at a low altitude over (as, to *buzz* an airfield).

CABANA: A beach shelter resembling a cabin, usually with an open side facing the sea.

CADRE: A nucleus of thoroughly indoctrinated leaders who actively promote the interests of a communist or revolutionary party.

CAFÉ CURTAINS: Plain, straight-hanging curtains, usually hung on poles by loops or rings, used to cover the lower part of a window or door.

CAFÉ SOCIETY: People who frequent fashionable cafés and night clubs.

CALYPSO: A ballad in African rhythm, often a parody or a satire on current events, sung especially by natives of the British West Indies as part of a pre-Lenten carnival.

CANDID CAMERA: A camera, usually a small one with a fast lens, used for taking unposed, informal pictures, usually without the subject's knowledge.

CANNIBALIZE: To dismantle a machine in order to get parts for use as replacements in other machines.

CAPSULE: Of a small type or in a condensed or streamlined form (as, a *capsule* review, criticism, or submarine).

CAPTIVE AUDIENCE: An audience obliged to stay within hearing of a speech or broadcast, often being subjected to advertising or propaganda.

CARD-CARRYING MEMBER: A Communist to whom a party membership card has been issued and who presumably carries it on his person.

CARHOP: A waiter or waitress at a drive-in restaurant who serves food and drinks to customers in their parked cars.

CARPORT: A roofed shelter for an automobile, usually attached to another building, and with two or more open sides.

CARTRIDGE: A removable pickup in the tone arm of a phonograph.

CASUAL: Of clothing, designed in a simple, easy style suitable for informal or sports events.

CEILING: A maximum, as for a price, wage, fee, or rent, which is fixed as the upper legal limit by government authority, usually on the basis of the level prevailing at a certain date.

CERAMAL = CERMET.

CERMET: A strong, heat-resistant metallic alloy.

CHAIN REACTION: In chemistry and physics, a process which can continue itself because one of its resulting products is always able to start the process anew until the original material is used up.

CHALKBOARD: A smooth flat surface, often of slate or composition, for writing on with chalk.

CHALKTALK: A talk or lecture which the speaker illustrates by making drawings or cartoons as he talks.

CHANNEL: A narrow band of frequencies on which a radio or television program may be transmitted.

CHARACTER ASSASSINATION: The attempt to discredit or destroy the reputation of another person, often by making vague, unproved accusations.

CHEAP: Having a depreciated purchasing power or value, especially as the result of a currency inflation (as, *cheap* dollars).

CHEESECAKE: Photography or photographs intended to display or accent female charms or attractions; also, any photograph having a considerable amount of sex appeal.

CHICHI, slang: Stylish; chic; fashionable; also, affected or esoteric.

CHLORAMPHENICOL: An antibiotic effective against certain rickettsiae and viruses.

CHLORDANE or CHLORDAN: An odorless liquid insecticide.

CHORAL SPEAKING: Interpretive reading or recitation, usually of poetry or rhythmic prose, by a group of voices known as a *speech choir*.

CHOREOGRAPH: To compose and arrange a ballet or dance; also, to provide a subject or a piece of music with a ballet or dance.

CHOROSCRIP: A system of notation used in teaching and recording dance figures and steps.

CINCHER: A wide, snug-fitting ornamental belt for women.

CLASSIFIED: Forbidden to be revealed out-

side authorized circles, for reasons of national security.

CLOAK-AND-DAGGER: Of literature, dealing in intrigue and melodramatic action, usually of characters in a colorful historical setting, and involving espionage, duels, or the like.

CLOBBER, slang: To beat or pound mercilessly; also, to defeat overwhelmingly.

CLOSED CIRCUIT: Television transmission in which the signal is not broadcast but can be received only by interconnected receivers.

CLOUD CHAMBER: A closed vessel containing saturated water whose sudden expansion makes visible by a trail of white droplets the passage of an ionized particle.

CLOUD SEEDING: The introduction of a substance, as dry ice or silver iodide, into certain types of clouds in order to cause rainfall.

CLOVERLEAF: A road plan resembling a four-leaf clover, in which one road passes over another, permitting traffic to merge without left-hand or abrupt turns or direct crossings.

CLUTCH: A critical point; a pinch (as, to come through in the *clutch*).

CLUTCH BAG: A woman's purse or bag, usually small and without a handle, which is carried in the hand.

COAXIAL CABLE: A cable used in the transmission of telegraph, telephone, and television signals, consisting of a tube of conducting material surrounding but insulated from a central conductor.

COFFEE BREAK: A rest period during the working day, allowing the employee time for a cup of coffee.

COLD FRONT: In meteorology, the forward boundary of a mass of cold air.

COLD WAR: A struggle between two nations or groups of nations, waged by use of political and economic strategy, propaganda, and other measures short of armed combat.

COLD WAVE: In hairdressing, a permanent wave produced by a chemical solution.

COLLECTIVE SECURITY: Security of all the members of an association of nations from aggression by any other nation or nations.

COLORCAST: A television broadcast in color.

COMBO: A small group of musicians, usually jazz players;—from *combination*.

COMIC BOOK: A paper-bound book made up of a series of cartoons or comic strips, sometimes humorous, often telling a story of adventure or crime.

COMMANDO: A band or unit of troops specially trained for making surprise raids into enemy territory; also, a member of such a unit.

COMMERCIAL: That portion of a sponsored radio or television program devoted to advertising; also, the script prepared for the advertising announcement.

COMMIE: A member or agent of the Communist party; also, a fellow traveler.

COMPATIBLE: Designating a system in which color television broadcasts may also be received in black and white on receivers not specially equipped for color reception.

COMPOUND F: A hormone used in the treatment of arthritis.

CONDITIONER: A substance which, when added to soil, improves aeration, workability, and crop yield.

CONSCRIPT: To enroll by compulsion for military service.

CONTACT LENS: A lens of glass or plastic fitted to the eyeball, worn instead of the usual eyeglass to correct defects of vision.

CONTAINMENT: Restraint; specif., the restriction of Communism to fixed territorial limits.

CONTOUR FARMING: A system of farming in which plowing and planting follow the contour lines of sloping land, thus retarding erosion from the runoff of rainwater.

CONVERSATION PIECE: Any unusual or distinctive article, as of clothing or furniture, which is likely to attract attention and provide a subject for conversation.

CONVERTER: A device for adapting a television receiver to receive channels other than those for which it was designed.

CONVERTIPLANE: An aircraft that takes off and lands like a helicopter but flies like a conventional airplane.

COOKOUT: An outing at which a meal is cooked and eaten in the open.

CORN: Corny acting or playing.

CORNY: Trite, stale; old-fashioned, or contrived; also, of music, played or sung in a bland, unsophisticated style.

CORONARY THROMBOSIS: A blood clot (a *thrombus*) occurring in an artery of the heart.

CORTISONE: A compound used in treating rheumatoid arthritis and certain allergies.

COUNTER-INTELLIGENCE: Organized activities of military intelligence services designed to block enemy sources of information and deceive the enemy by ruses, misinformation, and the like.

COUNTERWORD: A word used in popular speech in such a variety of situations that its original, specific meaning is lost and it serves only as a counter or token used in place of a more definite word (examples: *swell, awful, nice*).

COURTESY CARD: An identification card which supposedly assures its holder of favors or special treatment, as from the police.

CRACK UP: To crash or cause to crash, as an airplane; hence, to break down; collapse; go to pieces.

CRASHLANDING: An airplane landing in which the plane is either damaged or destroyed.

CREDIT LINE: A line, note, or name published with an article, news story, photograph, or the like, acknowledging the source.

CREEPING: Making, or thought to be making, inroads of undesired progress (as, *creeping socialism*).

CREW CUT: A short-cropped, bristly haircut for men.

CURVACEOUS: Having a feminine figure which is well-proportioned and marked by pronounced curves.

CUTBACK: A reduction in a prevailing rate, amount, or number (as, a production *cut-back*).

- CYBERNETICS:** Comparative study of the control system in the human brain and nervous system with that in such mechanical-electrical communication systems as computing machines.
- CYCLOTRON:** An apparatus used for imparting high speeds to electrified particles, used especially to bombard the nuclei of atoms in order to produce transmutations and artificial radioactivity.
- DAISY:** A circular cheese, usually about 12 to 14 inches in diameter and weighing between 18 and 24 pounds.
- DDT:** A colorless, odorless insecticide, used especially against body lice, flies, mosquitoes, and agricultural pests.
- DEAD DUCK:** Anything doomed or past recovery.
- DEADPAN:** A completely expressionless, immobile face.
- DECAMISADO:** A member of the Argentine working class.
- DECONTROL:** To remove control from (as, to *decontrol* the price of eggs).
- DE-EMPHASIZE:** To diminish in importance; to make less prominent (as, a move to *de-emphasize* football at a college).
- DEEP-FREEZER:** A cabinet where food may be quick-frozen and stored.
- DEFICIT SPENDING:** Spending in excess of income;—usually applied to a government.
- DEGREE DAY:** A unit that represents one degree of declination from any given point in the mean outdoor temperature for a day, often used in measuring fuel requirements for a building.
- DE-ICER:** Any system or mechanism used to rid or keep free of ice the wings and tail of an aircraft.
- DELTA WING PLANE:** A fast, high-flying airplane, triangular in shape, like the Greek letter delta.
- DELTIOLGY:** The hobby of collecting post cards.
- DENAZIFY:** To rid (the people or institutions of a Nazified country) of Nazism and its influence.
- DESENSITIZE:** In psychiatry, to free from a neurotic state; to make immune to a morbid emotional domination.
- DETECTAPHONE:** A telephone apparatus equipped with a microphone transmitter, used especially for listening secretly.
- DETERGENT:** A soluble or liquid preparation, often called "soapless soap," that resembles soap in its ability to emulsify oils and hold dirt in suspension.
- DIAL TONE:** A steady hum, audible in a telephone receiver, indicating that the line is free and a number may be dialed.
- DILLY:** Something of superior or remarkable quality; often, something presenting unusual difficulties or complications.
- DIM OUT:** To obscure in dimness, as by restricting illumination to specks or slits of light, lights shaded from above, or blue lights.
- DIRECTIVE:** An order or instruction as to plan or procedure, such as might be issued by a military official, or by a government or business executive.
- DISC JOCKEY or DISK JOCKEY:** One who conducts and announces a program of musical records, usually with advertising or nonmusical comments interspersed.
- DISCOGRAPHY:** A descriptive, classified catalogue or listing of phonograph records usually including dates and performers.
- DISCOPHILE:** An enthusiastic collector or student of phonograph records.
- DISPLACED PERSON or DP:** A person driven or deported from his home country during World War II as a prisoner of war, or forced labor, or because of his race, politics, or religion.
- DOCUMENTARY:** A film that depicts in artistic form a factual and authentic presentation, as of an event or a social or cultural phenomenon.
- DOODLE:** An aimless, somewhat automatic design, sketch, or scribbling made while one's mind is occupied with something else.
- DOSIMETER:** A device for measuring the amount of radioactivity absorbed by the body.
- DOUBLE-DOME:** A highbrow; an intellectual.
- DOUBLE-TAKE:** A delayed reaction to the importance or meaning of something that at first escaped notice;—usually in the phrase, to do a *double-take*.
- DOUBLE TALK:** Talk or writing that appears to be earnest and meaningful but is actually a mixture of sense, gibberish, and unintelligible verbiage.
- DOUBLE-THINK:** The ability to have in mind at the same time two contradictory beliefs and accept both;—coined by George Orwell in the novel *Nineteen Eighty-Four*.
- DRIVE-IN:** A place of business, as a theater or restaurant, designed to permit patrons to remain in their automobiles while watching a performance or making purchases.
- DRONE:** A pilotless airplane controlled by radio from the ground or another plane; also, a vessel similarly controlled.
- DRUNKOMETER:** A device for detecting and measuring the degree of alcoholic intoxication by analysis of the breath.
- DUB:** To provide (a film) with a new soundtrack; to blend music or sound effects into (a radio or television broadcast).
- DUCK:** An amphibious military vehicle having wheels and a propeller, that can be used as either a truck or a barge.
- DYNEL:** A synthetic textile fiber in staple form; also, the material made from this fiber.
- EARMOLD:** The portion of a hearing aid that fits into the ear.
- ECDYSIAS:** A strip-teaser;—a humorous term coined by H. L. Mencken.
- EGGHEAD:** An intellectual; a highbrow.
- ELDER STATESMAN:** A man who has retired from active public life but continues to act as an unofficial advisor, especially to government officials.
- ELECTRONICS:** The branch of physics that deals with the emission, motion, and effects of electrons.
- ELECTROSHOCK:** A state of shock induced by the passage of an electric current through the brain and useful in the treatment of certain mental disorders.
- EMCEE:** A master of ceremonies;—from *M. C.*

ENRICH: To improve (a food) in nutritive value by adding vitamins and minerals to it during processing.

ESCALATOR CLAUSE: A clause in a contract providing adjustment to cover such possibilities as increases or decreases in costs of labor, material, or living.

ESCAPE LITERATURE: Literature or writing providing mental escape or distraction from routine or reality.

EXPEDITER: One whose job it is to ensure an adequate supply of raw materials for fulfilling production contracts and to direct the movement of processed goods to where they are needed or wanted.

EXPOSURE METER: An instrument used by photographers for indicating the correct amount of exposure under varying light conditions.

EXPRESSWAY: A superhighway.

FADE: In radio and television, to change gradually in loudness or distinctness (as, to *fade* a picture or a sound in or out).

FAIR-TRADE AGREEMENT: An agreement between the manufacturer and the distributor of a trade-marked article, prescribing a minimum price for its sale.

FALTBOAT: A collapsible boat similar in size and shape to a kayak.

FAST BUCK: Money that can be made readily or quickly, usually with little effort.

FEATHERBED RULE: A union rule that requires an employer to hire unneeded workmen or to pay for duplication of jobs; also, one limiting the amount of work that workmen may do in a day.

FEATHER MERCHANT, *slang*: One who tries for easy jobs or is thought to be lazy; also, *military slang*, a civilian.

FEATURETTE: A short feature; specif., a motion picture of less than the usual length.

FEEDBACK: A partial return of the effects or product of a process to its source or to a preceding stage;—used especially of social, psychological, or biological systems.

FELLOW TRAVELER: One who sympathizes with and, often, furthers the program or ideals of, a group (originally, the Communist party) without being a member of the group.

FIFTH COLUMN: Secret supporters of an enemy engaged in sabotage or other subversive activity within defense lines.

FINGER PAINTING: A technique in which splashes of pigments (*finger paints*) are applied to wet paper and spread with the hands or fingers to form a picture or design.

FISSION: The splitting of the nucleus of an atom into two nearly equal parts, resulting in a tremendous release of energy.

FISSIONABLE: Capable of undergoing fission.

FIVE PERCENTER: One who undertakes to aid businessmen in obtaining contracts or doing other business with the government, usually for a fee of five per cent.

FLAME-OUT: A sudden blowing-out of the fire of a jet engine, caused by improper functioning of the fuel-supply system.

FLIPOVER CARTRIDGE: A phonograph cartridge that has separate needles for playing

both microgroove and standard records and that may be turned to bring the proper needle into playing position.

FLUFF: To bungle or stumble in delivering one's lines during a performance; also, to miss a cue.

FLUID DRIVE: An automotive power coupling between the flywheel of the engine and the transmission gears that operates on a hydraulic turbine principle.

FLUORIDATION: Treatment of drinking water with a fluoride to prevent tooth decay.

FLYING SAUCER: Any of various unidentified objects, usually described as disc- or saucer-shaped, reportedly seen in the air.

FOAM RUBBER: A spongy, fine-textured rubber used especially for cushions, mattresses and the like.

FOLD: To discontinue production or business for lack of patronage or because of public neglect (as, the stage play *folded* after only two performances).

FRAME OF REFERENCE: The environment of personal knowledge or experience in which an idea is conceived or interpreted.

FREELoader: A "sponge"; one who frequently obtains something (as food or drink) that is paid for by someone else.

FREEWAY: An express highway that bypasses towns and is largely free of intersections; a superhighway

FREEZE: To fix inflexibly, as by an executive order, at a given level or in the status on a given day (as, to *freeze* a price or a design).

FREQUENCY MODULATION or FM: A virtually static-free system of radio broadcasting in which the frequency of the carrier wave is modulated in accordance with the form of the sound or signal wave.

FRINGE AREA: An area on the outer edges of one having a greater strength or concentration (as, a *fringe area* for television reception).

FRINGE BENEFIT: Any benefit, such as health insurance or sick leave, not included in the basic wage, that workers receive from their employers.

FROGMAN: A person equipped for extended periods of underwater swimming, usually for military reconnaissance or underwater demolition.

FRONT: A person or group serving as public representative for a pressure group or subversive organization, often unwittingly, while thinking to act in public or patriotic interests.

FUSED COLLAR: A collar, especially one on a man's shirt, that has been lined or otherwise treated to retain its shape.

GADGETEER: An inventor or maker of gadgets; also, one given to buying or using them.

GAGSTER: A writer of gags or jokes, especially for radio and television programs.

GAMMA GLOBULIN: A fraction of blood plasma rich in antibodies and used against diseases such as polio and hepatitis.

GAPA: A rocket-powered guided missile used against aircraft and against other missiles;—from ground-to-air pilotless aircraft.

GENOCIDE: A calculated attempt to destroy systematically a racial, religious, or polit-

- ical group; also, an effort to destroy the language, religion, or culture of a group.
- GERIATRIC:** Of or pertaining to *geriatrics*, the branch of medicine dealing with old age and its diseases; also, aged (as, the *geriatric* patient).
- GHETTO:** A quarter of a city in which members of a racial group are segregated by social and legal pressure.
- GI:** A person who is serving or has served as an enlisted member of the U. S. armed forces.
- GIMMICK:** A trick; a clever or artful device or scheme.
- GISMO:** A gadget; device; contraption; also, anything without a name.
- GIVEAWAY:** A radio or television show in which members of the audience participate and receive prizes.
- GOBBLEDYGOOK:** Involved or obscure language such as is frequently found in official pronouncements.
- GOLDBRICK, slang:** To shirk or find excuses to evade assigned work.
- GOOFBALL, slang:** A sleeping tablet, especially one of the barbiturates.
- GOOGOL:** In mathematics, the figure 1 followed by 100 zeros.
- GRASSROOTS:** The farming districts of the country; also, the people living in them, thought of as a politico-economic group holding firm and independent views.
- GRAVEYARD SHIFT:** The third of three daily shifts, as in a factory, usually beginning at midnight.
- GREEN THUMB:** A special or unusual ability to make plants grow;—usually in the phrase, to have a *green thumb*.
- GREMLIN:** An impish gnome, whimsically accused by airmen of tampering with motors, instruments, and the like.
- G SUIT:** An inflatable suit worn by aviators during rapid aerial maneuvers to counteract the effects on the body of pressure greater than gravity.
- GUIDED MISSILE:** Any missile whose course may be directed during passage by a built-in target-seeking device or by radio control.
- GUN:** To open the throttle of (an engine) to increase the speed.
- GYROPILOT:** A control mechanism, sometimes called *automatic pilot*, that keeps an airplane in level flight and on a set course.
- HALF-TRACK:** One of the endless chain-tracks used instead of the rear wheels on a certain type of vehicle; also, a tractor or truck with half-tracks and front wheels.
- HARDTOP:** An automobile having most of the characteristics of a convertible, but with a stationary steel top.
- HASSLE:** A mix-up; also, an argument or fight.
- H-BOMB or HYDROGEN BOMB:** An extremely powerful fusion bomb.
- HEDGEHOP:** To fly an airplane so low that it has to "hop" over trees and hedges.
- HELIPORT:** A place for helicopters to land in order to discharge or receive passengers or cargoes.
- HEPCAT:** A musician in a jazz band; also, a devotee of jazz.
- HEX:** A spell or enchantment; a jinx (as, to put the *hex* on someone).
- HIGH FIDELITY or HI-FI:** The reproduction of sound, usually by a radio or photograph, with a high degree of faithfulness to the original.
- HIT PARADE:** A listing, as of popular songs or books, in order of current public preference.
- HOOD, slang:** A hoodlum; a rowdy.
- HOOPER or HOOPERATING:** An indication, based on the results of telephone polling, of the popularity of a radio or television program.
- HORSE'S TAIL = PONY TAIL, below.**
- HOT:** Radioactive; also, having to do with radioactive material (as, a *hot* laboratory).
- HOT ROD, slang:** An out-of-date automobile with the trimmings stripped off and the engine stepped up to permit high speeds.
- HOWGOZIT CURVE:** A running graph of the progress of an aircraft flight, especially a transoceanic one.
- HUCKSTER:** One whose business is commercial advertising, especially the preparation of clever, effective advertising programs for radio and television broadcasts.
- HYBRID CORN:** A crossbreed of Indian corn developed from selected strains and having the best characteristics of each.
- HYDROPONICS:** The growing of plants, especially vegetables, with their roots in water that contains the essential minerals, instead of in soil.
- HYPERTENSION:** Abnormally high arterial blood pressure; also, the resulting systemic condition.
- INFLUENCE PEDDLER:** One who tries to get special privileges, especially from the government, for his clients; a five-percenter.
- IN-SERVICE:** Taking place or continuing while in service (as, *in-service* training).
- INSTITUTE:** A short program of instruction or conferences for people already at work in a given field (as, a farmers' *institute* or a bankers' *institute*).
- INTERCOM:** A two-way short-distance communication system with microphones and loud-speakers at each end;—short for *intercommunication system*.
- IRON CURTAIN:** A barrier created by such means as censorship and prohibition of free travel to isolate Russian-controlled territory from outside contacts; hence, any similar barrier against communication.
- IRON LUNG:** A tank device for artificial respiration that forces air into and out of the patient's lungs.
- ISOBAR:** One of two atoms or elements having the same atomic weights but different atomic numbers.
- ISRAELI:** Of or relating to the Jewish state of Israel, in Palestine.
- ISSEI:** A Japanese immigrant to the U. S.; legally, an alien.
- JATO UNIT:** An auxiliary means of propulsion in which rocket engines are used to assist the take-off of an airplane;—from *jet* assisted take-off.
- JEEP:** A small, rugged multipurpose motor vehicle; originally one having four-wheel drive.

JET PROPULSION: Propulsion of a body by forces resulting from the rearward discharge of a jet (a high-speed stream of fluid) through an orifice. The forces are a reaction to the discharge of the jet, in accordance with the Newtonian law that to every force there is an equal and opposite reaction.

JIVE: The slang or jargon used by swing musicians and jitterbugs; also, any similar slang.

JUKEBOX: A coin-operated automatic phonograph-record player.

JUNKIE, slang: A narcotics user or addict.

KEYNESIAN: Of or pertaining to a system of economics (often associated with the New Deal) advocating considerable government participation in the economic affairs of a country.

KICKBACK: The return of part of a sum received, as of wages or fees, prompted by a previous confidential agreement or by coercion.

KINESCOPE: A form of cathode-ray tube with a screen at one end on which television pictures or oscillographs may be produced;—called also *picture tube*.

KINESICS: The study of such body motions as winks and waves as related to communication between people.

KNOW-HOW: Technical skill and practical ability; competence in planning or producing something.

LANDING CRAFT: Any of numerous naval warcraft designed for putting ashore troops or equipment in beach assaults.

LATCH ON TO: To attach oneself; also, to appropriate; to take over.

LEFTIST: One who belongs to a radical or revolutionary party; also, one who holds or advocates ultraliberal principles.

LEPROMIN TEST: A test for the recognition of immunity to leprosy.

LIBRETTO: The plan or scenario for a ballet.

LIQUIDATE: To kill secretly; also, to eradicate ruthlessly.

LOAFER: A man's or woman's low leather step-in shoe, resembling a moccasin but having a flat heel and stiff outsole.

LOBOTOMY: A leucotomy; an incision into the frontal lobe of the brain to sever nerve fibers in an attempt to relieve certain mental disorders.

LOCKER PLANT: A business establishment having quick-freezing equipment and lockers for storing frozen foods.

LONGHAIR: Idealistic; intellectualized; high-brow (as, *longhair* music or *longhair* writing).

LOYALTY OATH: A signed statement of loyalty, often one in which the signer affirms loyalty to the U. S. and denies any Communist connections or sympathies.

LYSENKOISM: A biological doctrine advanced by T. D. Lysenko, Russian agronomist, in defiance of orthodox genetics.

MAE WEST: A yellow life-saving jacket that can be inflated by two cartridges of carbon dioxide, worn especially by airmen in flights over water.

MEGADEATH: One million deaths (as, the power of an atomic bomb may be indicated in terms of *megadeaths*).

MEGATON: A million tons; also, an explosive force equal to that of a million tons of TNT;—used especially with reference to a hydrogen bomb.

MERCY KILLING: Euthanasia; killing, especially in a quick, painless manner, to put the victim out of extreme pain or misery.

ME-TOO-ISM: The echoing of another's opinions or attitudes, usually implying an inability or unwillingness to think for oneself.

MICROFILM: A strip of film on which a reduced-size photographic record of printed matter may be kept in a small space.

MICROGROOVE: A narrow V-shaped groove used on phonograph records intended to play at speeds of 33 1/3 or 45 revolutions per minute.

MIDDELBROW: Middle-class; midway between highbrow and lowbrow.

MILK BAR: A place where milk, ice cream, and other dairy products are sold and may be consumed.

MOBILE: A delicately balanced type of sculpture, usually having movable parts which can be set in motion by air currents or other means.

MOLOTOV COCKTAIL: A crude explosive device, typically, a gasoline-filled bottle capped with an oil-soaked rag that is ignited just as the bottle is thrown at the target.

MOMISM: A supposed excessive admiration and sentimentalizing of mothers, thought to permit a possessive mother to deny her offspring emotional independence.

MONITOR: To check (a radio or television transmission) for quality or fidelity to band; also, to check (as a broadcast) for military or political significance.

MONOLITHIC: Consisting of one large, undifferentiated whole, exhibiting one harmonious pattern throughout (as, a *monolithic* party or culture).

MONTAGE: The production of one complete picture by combining several distinct ones, often in such a way that they blend with or into each other.

MORETIC: Pertaining to mores or social conventions.

MOTEL: A hotel or group of furnished cabins or attached cottages, situated near a highway, offering accommodations to automobile tourists.

MOTHBALL: That which has been placed in indefinite, protective storage (as, a *mothball* fleet or airplane).

MOTORCADE: A parade or procession of automobiles.

MOTOR POOL: A group or fleet of motor vehicles for use as needed by different organizations or individuals.

MULTIPHASIC: Having or considered in terms of many aspects or phases (as, a *multiphasic* approach to a problem).

MUSCULAR DYSTROPHY: A hereditary disease in which there is progressive wasting away of the muscles.

NAPALM: A thickener used to gel gasoline for incendiary bombs and flame throwers.

NEEDLE: To vex or annoy by repeated sharp gibes; also, to goad or prod.

- NEWSCASTER:** One who broadcasts news, as on radio or television; also, a commentator.
- NIACIN:** A member of the B-vitamin group useful in the prevention of pellagra;—called originally *nicotinic acid*.
- NISEI:** A U. S. citizen born of Japanese immigrant parents.
- NONOBJECTIVE:** In art, creating effect through shapes and colors not intended to represent actual objects; abstract.
- NO-SHOW:** A passenger who, after making a reservation on an airplane, does not show up to claim it at flight time and has made no cancellation.
- NUCLEAR:** Having to do with the atomic nucleus (as, *nuclear physics*).
- NURSERY SCHOOL:** A center for children, usually under 5 years of age, providing supervised play and social training for a few hours a day.
- NYLON:** A synthetic material that can be fashioned into tough, strong, elastic threads and used in making brush bristles, hosiery, textile fabrics and the like.
- OCCUPATIONAL THERAPY:** The treatment of disease or injury by giving the patient regulated work that will help his recovery or rehabilitation.
- OMNIBUS:** A book of reprints, usually one containing works of the same type or by a single author.
- OPPOSITE NUMBER:** A person or position in one system corresponding to one in another (as, an ensign is the *opposite number* of a second lieutenant).
- OSCAR:** One of the statuettes awarded annually for highest excellence in motion picture work; hence, any annual award for excellence.
- PACKAGE:** A fully constructed, prearranged program or plan, such as a radio show or tour, usually offered for sale at a flat sum; also, any finished product made ready for immediate use by preassembling all essential elements into a unit.
- PAN:** To move (a camera) in order to follow a moving object or secure a panoramic effect.
- PANIC SWITCH:** The control on the ejector mechanism that throws a jet pilot from his plane in case of emergency.
- PARAPSYCHOLOGY:** A branch of psychology concerned with investigating evidence for telepathy, clairvoyance, and the like, and with experiments in the field of extrasensory perception.
- PARA-RESCUE TEAM:** A team of rescuers who drop by parachute, as to the scene of a plane crash, in order to give immediate aid to anyone in distress.
- PARITY:** The balance between the prices the farmer receives for his products and the prices he has to pay for the things he must buy.
- PARTISAN:** A member of a guerilla band working behind enemy lines and engaged in such activities as sabotage, demolition, and diversionary attacks.
- PARTY DISCIPLINE:** The discipline imposed on its members by a party;—usually applied to the Communist party.
- PARTY LINE:** The policy or course of action followed by a party, originally specifically by the Communist party.
- PATCH TEST:** A test for determining susceptibility, made by applying to the skin small pads soaked with the allergy-producing substance in question.
- PEDAL PUSHERS:** Women's trousers, usually calf-length, for sports wear.
- PENICILLIN:** An antibacterial substance extracted from green mold, useful in treating infections.
- PERIL POINT:** The lowest rate to which a tariff can be reduced without injuring the industry of the country levying it.
- PHOTOMURAL:** An enlarged photograph, usually several yards long, affixed to a wall as decoration.
- PICTURE TUBE = KINESCOPE.**
- PICTURE WINDOW:** An extra-large window, usually in a living room, framing a desirable outside view.
- PIGGY-BACK PLANE:** A small airplane carried aloft on the "back" of a larger one, from which it is released in mid-air.
- PIPE:** In radio and television, to transmit (a program) by wire or coaxial cable.
- PIZZA:** A large flat tart made of bread dough spread with pieces of tomato, cheese, and shreds of meat, anchovies or the like, flavored with herbs, and baked thoroughly.
- PIZZERIA:** A restaurant or bakery where pizzas are made and sold.
- PLATTER:** A phonograph record.
- PLUNGING NECKLINE:** A very deep V-neckline in women's apparel.
- PLUSH:** Luxurious; over-elegant (as, a *plush* summer resort).
- POLICE STATE:** A totalitarian state having repressive government control of radio, press, culture, and economic and political life.
- POLITIC:** To campaign for political office; also, to seek to further a special end.
- POLLEE:** One who is questioned in or gives answers for a poll.
- POLO SHIRT:** A close-fitting pullover jersey or sport shirt of cotton knitwear, originally patterned after jerseys worn by polo players.
- PONY TAIL:** A hairdo for women, in which the hair is drawn back tightly from the face and up from the neck, and tied.
- POODLE CUT:** A very short, curly hairdo for women, in imitation of a poodle's coat.
- POP:** Short for *popular*;—used especially of 'music other than classical.
- PORTAL-TO-PORTAL:** Pertaining to the time a workman spends traveling from the portal or gate of company property to his actual place of work and in returning at the end of the work shift.
- PREFAB:** A prefabricated house or structure, construction of which consists merely of assembling and uniting standardized parts.
- PRESSING:** A phonograph record made from a matrix; also, the whole number of such recordings made at a single time.
- PRESSURE GROUP:** A minority group that brings pressure to bear on legislators or public opinion, often by lobbying or use of propaganda, to force legislation or change public policy.

PRESSURE SUIT: A suit worn by pilots flying at high altitudes, which inflates automatically when pressure inside the plane is lost.

PRESSURIZE: To maintain near-normal atmospheric pressure inside (the sealed cabin of an airplane) during high-level flight.

PRIVATE EYE: A private detective.

PROFILE: A vivid, concise biographical sketch; also, a concise analysis of any subject.

PROXIMITY FUZE: A device for making a projectile explode near the target.

PSYCHODRAMA: A spontaneous drama in which the actors exhibit their natural psychological reactions to a given situation, used especially in treating the mentally ill.

PSYCHOMETRICS: A branch of psychology that deals with the use and application of mental measurement; also, the technique of such measurement.

PSYCHOSOMATIC: Of or pertaining to the influence of mental factors on bodily disorders.

PUBLIC RELATIONS: The activities of a corporation, government, or other organization in building and maintaining good relations with the general public or with special groups.

PUNCH CARD: A data card with punched holes in particular places, each having an assigned significance, used in certain automatic business machines.

PURGE: To rid (a state or party) of members suspected of disloyalty.

PUSHOVER: An opponent easily defeated or a victim incapable of effective resistance; also, any problem presenting no real difficulties.

QUARTERBACK: To direct; to make plans and give instructions for carrying them out.

QUICK-FREEZE: To freeze (food) so rapidly that the natural juices and flavor are preserved.

QUICKIE: Anything hastily prepared or made; anything done without much preparation.

RABBIT EARS: A small indoor television antenna composed of two rods projecting upward from a ball-base in the form of a V.

RACISM: The assumption that certain races are naturally superior to others; also, any doctrine or program based on such an assumption.

RADAR: A powerful radio detecting device capable of establishing the distance, altitude, and direction of motion of any object in the path of its beam.

RADIANT HEATING: The heating of a house or room by heat radiated from large surfaces, such as floors, walls, or baseboards, that have first been warmed by heating coils or hot-air ducts.

RADIATION SICKNESS: An illness that results from exposure to radiation, as in radiotherapy or an atom bomb explosion.

RANCH HOUSE: A one-story dwelling, usually with an informal interior plan and a low-pitched roof.

REACTOR: An arrangement of fissionable material designed for the production and control of a chain reaction;—called also *nuclear reactor* and *pile*.

RECESSION: A slowing down of commercial and industrial activity, less severe than a depression; also, a period of such slackening.

RECONVERSION: The process of converting (especially a war plant) back to the production of civilian goods.

RED-BAITER: One who baits, attacks, or harasses communists or radicals.

REFRESHER: Providing reinstruction after a period of inactivity or instruction designed to keep one abreast of new developments in a field (as, a *refresher* course in auto mechanics).

RESISTANCE: An organized underground movement in a conquered country made up of groups of fighters engaged in sabotage and secret operations against occupation forces;—often with *the*.

REV: To raise or lower the number of revolutions per minute;—originally, of an airplane motor.

Rh FACTOR: A factor present in the red blood cells of 85 per cent of white persons (Rh-positive) and absent in 15 per cent (Rh-negative), so called because discovered in the blood of Rhesus monkeys. Rh incompatibility is manifested by red cell destruction and occurs when the two types are mixed in one person, especially as in the infant of an Rh-positive father and Rh-negative mother.

RHUBARB: A heated argument or dispute, often one that takes place on the field during a baseball game.

RIBOFLAVIN: Vitamin B₂, the growth-promoting substance of the vitamin-B group.

RIGHTIST: In politics, a member of the right; a conservative or royalist.

ROBOT BOMB: A small, pilotless jet-propelled airplane, steered by a gyroscopic device and loaded with explosives, that falls as an aerial bomb when its fuel supply is gone.

ROC: An aerial bomb with a television apparatus that transmits information back to the bombardier, who may then correct his initial aim by remote radio control.

ROCKET SHIP: An aircraft propelled by rocket power.

ROLLER DERBY: A form of sport in which teams on roller skates race around a track.

ROTATION: The military system of exchanging individuals or units assigned to combat or arduous duties with personnel more comfortably situated.

RUMPUS ROOM: A room in a home, often in the basement, set apart and suitably furnished for games and recreation.

RUPTURED DUCK: The symbol of an eagle with wings outspread depicted in the discharge emblem for personnel of the U. S. armed services.

RUSSIAN ROULETTE: A game or act of bravado in which the "player" puts one cartridge into a revolver, aims it at himself, spins the cylinder, and pulls the trigger.

SATELLITE: A state or country politically

and economically dominated by a more powerful neighboring one.

SCAN: In radar, to cause (a certain area) to be traversed by a directive beam.

SCARE BUYING: Sudden buying, often involving an overstocking, of certain goods because of the fear that they may become scarce or unobtainable.

SCHMOE or SCHMO, *slang:* A stupid person; a misfit; a jerk.

SCIENCE FICTION: Imaginative or fantastic fiction, dealing especially with such subjects as life in the future, interplanetary travel, and life on other planets.

SCRATCH TEST: A test for determining susceptibility, made by rubbing an extract of the allergy-producing substance into the skin.

SCREEN: To pass through a standardized test for sorting out candidates according to abilities or eliminating the unfit; hence, to examine or select methodically.

SCREWBALL: Someone whose ideas or actions are crazy or fantastic; also, anything ridiculously absurd or zany.

SCRIPTER: A writer of scripts, as for movies, radio, or television.

SEND: In swing music, to perform with or inspire to spontaneous improvisations; also, to play so as to elate a listener.

SHAKEOUT: A moderate slowing down of commercial and industrial activity with a decrease in prices and employment, usually regarded as a readjustment toward normal after a period of inflation.

SHARP, *slang:* Conspicuously attractive; in keeping with the latest styles, as of clothing or speech.

SHOCK THERAPY: Treatment of mental disorders by means of a coma induced artificially by the administration of drugs or electric shock.

SHOOTING WAR: Conflict involving actual participation of armed forces in combat, as opposed to a war of nerves or a propaganda war.

SHOPPING CENTER: A group of retail stores or other business places, sometimes in one building, and usually provided with a large parking lot.

SIGNATURE: A tune or sound effect used to identify a particular radio program or feature;—called also *theme*.

SILK SCREEN PROCESS: A stencil method in which a design is made on a fine-mesh silk screen and transferred to another surface by forcing pigment through the screen with a squeegee.

SIMULCAST: A simultaneous broadcast of a program by radio and television; also, a program thus broadcast.

\$64 QUESTION: The most baffling question in a given situation, often one that defies direct answer.

SKIP-STOP: Not stopping at all points (as, *skip-stop* elevator or subway service).

SKYSWEEPER: A radar-aimed anti-aircraft weapon.

SKYTYPING: A technique, similar to sky-writing, in which seven equally spaced aircraft emit puffs of smoke to form the letters of a message.

SLICK or SLICK PAPER: A large-circulation magazine printed on glossy paper;—usually implies slightness of content and technical smoothness.

SMAZE: A combination of smoke and haze.

SMEAR: To defame or blacken the reputation of a person or group by name-calling or by maliciously spreading exaggerated charges or rumors.

SMEAR CAMPAIGN: A concentrated program of vilification and smearing.

SNACK BAR: A counter or bar at which light refreshments and lunches are sold or served.

SNEAK PREVIEW: An unannounced showing of a new motion picture, usually to determine audience reaction to it.

SNOLLYGOSTER: A rascal or an unscrupulous person, especially an unprincipled politician.

SNOW: Small, moving, bright or dark spots on a television screen, resulting from the same causes as static in radio.

SOAP OPERA: A daytime radio or television serial drama performed on a commercial program chiefly for housewives.

SOCIALIZED MEDICINE: Administration by a government or other organized group of medical and hospital services for all members of a class or all members of the population.

SONAR: An apparatus that detects the presence and location of submarines or other underwater objects;—from sound navigation and ranging.

SOUFFLÉ: Tiny multicolored beads of glass or metal, used for embroidery.

SOUND CONDITIONING: The control of sound, as in an auditorium, by eliminating unwanted noise and excessive reverberations.

SOUP UP: To step up the horsepower of a motor, as on an airplane or a jalopy.

SPACE: Popularly, the region beyond the earth's atmosphere, lying between and beyond the planets and the stars.

SPACE MEDICINE: A suggested branch of medicine which would try to study conditions of outer space and their effect on the human body.

SPACESHIP: An imaginary aircraft for interplanetary travel.

SPEECH CLINIC: A clinic for the diagnosis and correction of speech disorders.

SPELUNKER: One whose hobby is exploring and studying caves and underground phenomena.

SPIV, *slang:* One who contrives to make a living without working; a slacker.

SPLINTER GROUP: In politics, a group broken away from a larger, original organization.

SPLIT-LEVEL HOUSE: A house built on different levels, usually with the floor level of a single-story section about midway between the floor levels of an adjoining two-story section.

SPOTTER: A civilian who watches the sky to report and identify approaching aircraft.

STATELESS: Without a state or nationality, as a person who was a citizen of a country no longer in existence.

STATESIDE: Of, pertaining to, characteristic of, or coming from the continental U. S.

(as, a transfer from Europe to *stateside* duty).

STATIONARY FRONT: In meteorology, a boundary between two air masses which show little or no movement.

STATION BREAK: In radio and television, the pause in a program or between programs to permit stations to identify themselves.

STATION WAGON: A sedanlike automobile having a tail gate and back seats that can be removed or folded so the vehicle can be used for light trucking.

STATISM: Government control or direction of important aspects of the economic life of a citizen.

STEREOPHONIC: Of reproduced sound, giving the effect of coming from two or more directions.

STOCK CAR RACING: Automobile racing in which ordinary cars are used rather than specially constructed racers.

STOCKPILE: A reserve supply of any essential material accumulated and stored as a safeguard against a shortage.

STORM COAT: A tailored winter coat for men or women, usually having a heavy lining and a mouton collar, and often made of gabardine.

STRAWHAT CIRCUIT: A summer theater circuit, often including the more popular resort areas.

STREPTOMYCIN: A substance extracted from certain soil bacteria and used against the bacteria of certain diseases, as typhoid fever, tularemia, and tuberculosis.

SULFA: Of or belonging to a class of drugs that are related to sulfanilamide and have a destructive action against certain types of bacteria.

SUPERHIGHWAY: A highway consisting of four or more lanes, designed for fast-moving traffic.

SUPERMARKET: A large, departmentalized retail store, usually self-service, selling foods and other household merchandise.

SUPERSONIC: Designating a speed greater than that of sound (about 738 miles per hour); also, moving or capable of moving at such speed (as, a *supersonic* aircraft).

SWING SHIFT: The work shift between the day and night shifts in a factory operating on a 24-hour basis, usually from 4 p.m. to midnight.

SYNC: In motion pictures and television, short for *synchronize* or *synchronization*.

TAKE-HOME PAY: The remainder of a person's gross wages after deductions, as for income-tax withholding, retirement, and union dues, have been made.

TAPE: A magnetized ribbon on which sounds may be recorded. — To record (sounds) on such a ribbon.

TELECAMERA: A television camera.

TELECAST: A program broadcast by television. — To broadcast by television.

THEATER-IN-THE-ROUND: A theater so arranged that the action area is in the center and the audience is seated on all sides of it;—called also *arena theater*.

THERMONUCLEAR: Pertaining to the heat energy resulting from or connected with changes in the nuclei of atoms.

THIAMINE: A vitamin, also known as *vitamin B₁*, that prevents beriberi and certain kinds of neuritis.

THOUGHT CONTROL: Repressive control or domination of individual ideas and thinking by another person or group.

THREE-DIMENSIONAL or **3-D:** Giving the illusion of depth or varying distances;—applied to pictures, especially stereoscopic motion pictures.

TONE ARM: The movable part of a phonograph that contains the sound box or pickup and permits the needle to follow the grooves in the record.

TOP-DRAWER: Of the highest or first order of rank, excellence or importance.

TRACE ELEMENT: A chemical element, usually a metal, essential in minute amounts to the welfare of a plant or animal.

TRACKMOBILE: A lightweight tractor used for moving railroad cars in a switchyard.

TRANSISTOR: An electronic device similar in use to the electron tube.

TWEEDY: Given to or fond of wearing tweeds;—usually implying a certain matter-of-factness, robustness or informality of manner.

TWEETER: A small loudspeaker that responds only to high sound frequencies and is used to reproduce sounds of high pitch.

2,4-D: A white crystalline compound used as a weed killer.

ULTRAHIGH FREQUENCY or **U.H.F.:** In radio and television, any frequency in the range from 300 to 3000 megacycles.

VEEP: A vice-president.

VERY HIGH FREQUENCY or **V.H.F.:** In radio and television, any frequency in the range from 30 to 300 megacycles.

VIDEO: *Television.* Pertaining to or used in sending or receiving the image (as, *video frequency*). Contrasted with *audio*.

VIDEOCAST: A television broadcast.

VIP: A very important person; sometimes, one using an assumed name for security reasons.

WALKIE-LOOKIE: A portable, battery-operated television camera.

WALKIE-TALKIE: A compact, battery-operated transmitting and receiving radiotelephone that is carried like a knapsack and especially adapted for communication in the field.

WATER SKIS: Wide skis towed by a fast motorboat and ridden like a surfboard.

WEEDICIDE: Any weed killer, especially a chemical one, as 2,4-D.

WELFARE STATE: A state that, by its concern with public health, insurance against sickness and unemployment, and similar measures, assumes a large share of responsibility for the welfare of its citizens.

WETBACK: A person who enters the U. S. illegally from Mexico by wading or swimming the Rio Grande River.

WHAMMY: A curse or jinx (as, to put the *whammy* on a person).

WITCH-HUNT: A searching out of victims, especially liberals, professedly to expose them as disloyal or subversive, but actually to harass them for political reasons.

WOOFER: A loudspeaker, larger than a tweeter, that responds only to lower sound frequencies.

ZOOT SUIT: A suit of extreme cut, usually having a long jacket with broad shoulders, and high-waisted peg-top trousers.

Words Frequently Misspelled

(Here spelled correctly)

abbreviate	annul	bleach	commissary	cyclone
abeyance	annulment	bonnet	commission	cygnet
abolition	anomaly	bouillon	committee	cylinder
abridge	anonymous	boundaries	commodore	cylindrical
abscess	answer	bouquet	comparable	
absence	antechamber	bourgeoisie	compatible	daffodil
absorption	antediluvian	brilliant	compel	dahlia
abstinence	antenna	browse	compelling	damage
abysmal	anticipate	bullion	complexion	dearth
abyss	antidote	bunion	compromise	debatable
accede	apologize	buoyancy	concede	debilitate
accelerate	apoplexy	bureaucracy	conceit	decadence
accessory	appalling	business	conceive	deceased
accidentally	apparatus		concomitant	deceitfully
acclaim	appreciation	cafeteria	concupiscence	deceive
accommodate	appurtenance	callously	concurrency	decision
accompaniment	argosy	calorie	condemn	defendant
accordance	argument	candidacy	condescension	deference
accredit	arraign	cantaloupe	connoisseur	defiant
accumulate	ascend	canteen	conscience	definitely
accuracy	ascension	capitalize	conscientious	delegate
achieve	ascertain	captaincy	conscious	delicacy
acknowledge	asinine	caress	consecrate	demise
acoustic	aspirant	carillon	consistent	denouement
acquaintance	assassinate	carriage	conspicuous	descendant
acquiescent	assistance	carrot	conspiracy	desecrate
acquire	association	cartilage	constituency	desiccate
acquisitive	assurance	casualties	constituent	despair
acquit	attendance	ceiling	consulate	desperate
acrimony	attenuate	cemetery	contaminate	despicable
across	attorney	chalet	contemptible	despise
adaptation	audible	challenge	contemptuous	despondent
addition	audience	chamois	contentious	detachable
address	autumn	champagne	continually	deterrent
adept	auxiliary	changeable	controversy	development
adequacy	azalea	character	convalescent	diabetes
adolescence		chauffeur	convenient	diaphragm
adventitious	babyhood	chemise	convertible	dictionary
advocacy	bacchanalia	cherub	cooling	diesel
affable	bachelor	chicory	cordially	different
aggravate	baggage	chief	corollary	diffident
aggregate	banana	chilblain	correlate	dilapidated
aggressive	barbecue	chivalrous	counterfelt	dilatory
aghost	barbiturate	choosing	counterrevolu-	dilemma
align	battalion	chronicle	tion	dilettante
alleged	believe	chrysanthemum	courageous	diligent
allegiance	beneficiary	cipher	courteous	dimension
allotment	benefited	circuit	court-martial	dimity
all right	benign	circumstantial	crescent	dining room
allure	bereave	civilize	critically	diphtheria
amateur	beseech	civilly	crochet	diplomacy
amenable	beverage	clumsily	croquet	disappear
analogous	bibliography	coarsen	cruelty	disappoint
analysis	bicycle	cocoa	cunning	disapprove
annals	biennial	codicil	curriculum	disastrous
annihilate	bigoted	column	cursor	discern
annually	bilious	coming	custodian	discipline
annuity	blasphemous	commencement	customary	disconsolate

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discrepancy	equally	gauze	indefatigable	legendary	
discretion	equipped	genealogy	indefeasible	legitimate	
disdain	erratic	genre	indefensible	leisure	
disillusion	especially	ghastly	indelible	leprosy	
disinter	ethereal	gibber	independence	lettuce	
disparage	evanescent	giblets	indict	liable	
disperse	eventually	gingham	indigenous	librarian	
dissatisfaction	evidently	gizzard	indiscriminate	ligament	
dissemble	evilly	globule	indispensable	likelihood	
dissenter	exaggerate	government	individuality	limousine	
dissimilar	exasperate	gradient	indivisible	liquor	
dissipate	exceed	grammar	inexhaustible	litany	
dissolve	excel	grateful	infallible	livelihood	
distention	excellent	gratitude	influential	loathe	
divine	exception	grievous	inimical	loneliness	
dizziness	excerpt	grimace	innate	lonely	
dizzy	excess	gruesome	innocuous	loosely	
dogged	excessive	guaranteed	inoculate	lunacy	
domain	excise	guidance	insensate	luscious	
domicile	excitement		inseparable		
dormitory	excrecence	haggle	insistence	mackerel	
dotage	execrable	hallucination	intellectually	mackintosh	
doughnut	exhaust	handkerchief	intercede	maddening	
dour	exhibit	harass	interpret	maggot	
duly	exhilarate	harness	interracial	maintenance	
dutiable	exhort	heifer	interrupt	malaria	
dutiful	exhume	height	intimidate	manacle	
	existence	heresy	introvert	maniacal	
earnest	exorbitant	hideous	irreconcilable	manufacturer	
eavesdropper	expedient	historically	irrefutable	marmalade	
ebony	experience	hoary	irresistible	massacre	
eccentric	extension	homogeneous	irrespective	mayonnaise	
echoes	extenuate	horoscope	irreverent	measles	
echoing	extinguish	hygiene	irrigate	mediocre	
ecstasy	extraordinary	hypnotic	isosceles	mediocrity	
edible	extravagant	hypocrisy		mellifluous	
editor	exuberant	hypocrite	jaundice	metamorphosis	
effervescent	exultant	hypocritical	jealousy	meteorology	
efficiency		hysterically	jeopardy	millionaire	
effigy	fallacy		jockey	mimicking	
effusive	fallible	idiocy	jollity	mimicry	
egress	fascinate	idiosyncrasy	journeyman	miniature	
eider down	fiery	idolatrous	joviality	miscellaneous	
eighth	filament	illegitimacy	jovially	mischievous	
elegy	financier	illegitimate	jugular	misspell	
elementary	fissure	illiterate		moccasin	
eligible	flaccid	illogical	kaleidoscope	mortgage	
eliminate	fluorescent	imaginary	khaki	mountaineer	
emanate	forcible	imbecile	kiln	mountainous	
embarrassment	foreboding	imitate	kimono	mulatto	
emigrant	foresee	immaculate	kindergarten	murmur	
eminent	forsythia	immeasurable	knead	mysterious	
emphatically	fracas	immediately	knowledge		
emulate	fragility	immorality		naphtha	
enable	friar	immune	laboratory	narcissus	
encourage	friend	impeccable	labyrinth	nascent	
endear	frivolous	impertinent	lacquer	naturally	
endorse	fugue	implement	ladle	nausea	
energetic	fulsome	improvise	ladylike	nauseous	
enervate	functionary	incensed	language	necessarily	
ennoble	fundamentally	incessantly	laryngeal	necessitate	
entail		incidentally	larynx	niece	
enumerate	gabardine	incise	lascivious	niggardly	
enunciation	gagged	incongruous	latitude	ninth	
enviable	gamut	incorruptible	lattice	noncombatant	
environment	garrulity	incredible	leaven	noticeable	
equalize	gaseous	indebted	legacy	notoriety	

obedience	pompous	referable	sanitarium	succeed
obscance	pontiff	referee	sassafras	success
obligate	pontificate	reference	scandalous	succor
obscene	portrait	referendum	scenario	sufferance
obsession	possessive	refraction	scentless	superintendent
obstacle	possibility	rehearsal	schedule	supervise
obstinate	potatoes	relevant	schism	supplement
occasion	practicability	religious	scintillate	suppress
occurrence	precede	reminiscence	scourge	surfeit
oddy	precedence	renaissance	scurrilous	surfeited
offensive	precedent	renounce	scythe	surprise
official	precocious	renown	secede	surveillance
ominous	predecessor	renunciation	sedentary	susceptible
omission	preferable	repellent	seesaw	syllable
oneself	prejudice	repercussion	segregate	symbolically
operator	presence	repertory	seize	symmetrical
opportunity	presumptuous	repetitious	self-reliant	symmetry
opposite	prevalent	reprieve	sensitive	syphilis
optimist	primeval	rescind	sensual	systematically
origin	privilege	resemblance	sententious	
oscillate	probably	reservation	separate	taffeta
ostentatious	proceed	reservoir	serviceable	talisman
outrageous	professor	residual	severely	tariff
oxidize	promenade	resilient	shellacking	tattooing
	pronunciation	resistance	shield	technicality
	propaganda	resonance	shriek	temperament
palatable	propeller	respectively	siege	temperature
pamphlet	protein	respite	sieve	tempestuous
panacea	pseudonym	responsible	significance	temporary
pantomime	psychoanalysis	restaurant	similar	tenacious
parallel	psychology	resurrect	sirocco	tendon
parliamentary	ptomaine	retaliate	skein	tenement
paroled	publicly	retina	skillet	tension
parricide	pursuit	retrieve	sleigh ride	tentacle
participle	pyramid	veille	sleight of hand	testament
particularly		revelation	slimy	theirs
pastime	quadruped	reverence	slovenly	thief
patience	quandary	reversible	sluggish	thoroughfare
pavilion	quarantine	revolution	sluice	thousandth
pedant	quarrelsome	rhapsody	smorgasbord	threshold
pedestal	quay	rhetorically	so-called	thunderous
penicillin	querulous	rheumatic	soccer	tidiness
perceive	queue	rhinestone	solder	timorous
perennial	quixotic	rhinoceros	solecism	tinselly
peripatetic	quizzes	rhododendron	soluble	titillation
permissible	quizzical	rhythm	solvable	tobacco
perseverance		rickety	somersault	toboggan
persistent	racketeer	ridiculous	sophisticated	tolerant
personality	ragamuffin	righteous	souvenir	tomatoes
personnel	raillery	riotous	spacious	tonsillectomy
perspiration	rapidity	riveter	spatial	tonsillitis
persuade	ravenous	ruful	specimen	toque
physician	realize	rummage	spigot	torrential
planos	really	runaway	sponsor	tortoise
picnic	rebus	rutabaga	squalid	tournament
picnicking	recalcitrant		squalor	tourniquet
piecemeal	recede	sabotage	stabbing	trachea
perce	recept	sachet	staccato	tradition
pigsty	receive	sacrament	statue	trafficking
pilgrimage	recipe	sacrificial	stoically	tragically
pillory	recipient	sacrilege	straightway	transcendent
pinion	recognition	sacrilegious	strait-laced	transept
piteous	recollect	sadism	stubbornness	transient
playwright	recommend	saffron	subsidize	transparency
plebiscite	recoup	salient	substantial	transubstantia-
pneumatic	recruit	sanatorium	subtle	tion
pneumonia	redolent	sanctuary	subtlety	trauma
				tread

disk	tyrannical	untenable	virile	whooping cough
dismendous	tyranny	unwieldy	virtual	whore
crepidation	tyrant	upbraid	visibility	wield
tributary		usually	visionary	withhold
tricycle	ukulele	utensil	vitality	witticism
triennial	ulcerous	utilize	vitaly	wizard
trollop	ultimate	utopia	voluminous	wondrous
trough	unadulterated		voluntarily	wooling
trousseau	unalloyed	vaccinate		worried
truant	unanimous	vacillate	warrior	worrying
truism	uncomplimen-	vacuum	weakling	wrapper
truly	tary	valet	weasel	wreak
tuberculosis	unconscionable	vanilla	weather vane	wrestle
tumultuous	unctuous	vegetable	weighing	
turpentine	undoubtedly	vehicle	weird	yacht
tussle	unexceptionable	venereal	welcome	yield
tweezers	unguent	vengeance	whalebone	
tycoon	unparalleled	vermillion	wheelie	zealous
typhoon	unprecedented	vigilance	whimsical	zoology
typical	unpredictable	vilify	whirl	zwieback
typify	unrequited	villain	wholly	

Forms of Address

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Abbot. Address: The Right Reverend _____
_____, Abbot of _____. *Begin:* Right
Reverend and dear Father.

Alderman. Address: Honorable _____
_____. *Begin:* Dear Sir.

Ambassador. Address: His Excellency, _____
_____, Ambassador of _____ at _____.
Begin: Sir; or Excellency.

Ambassador and his wife. Address: His Excel-
lency, The _____ Ambassador and Mrs.
_____. *Begin:* Your Excellencies.

Archbishop (Anglican). Address: The Most
Reverend His Grace the Lord Archbishop
of _____. *Begin:* My Lord Archbishop; or
Your Grace.

Archbishop (Roman Catholic). Address: The
Most Reverend _____, D.D.,
Archbishop of _____. *Begin:* Your Ex-
cellency.

Archdeacon. Address: The Venerable The
Archdeacon of _____. *Begin:* Venerable
Sir.

Army Officers. Address: The Commander in
Chief, Army of the U. S.; or (use officer's
rank) _____. *U.S.A. Begin:* Sir;
or My dear General _____.

Assemblyman. Address: The Honorable _____
_____, Member of Assembly; or Assembly-
man _____. *Begin:* Sir; or My dear Mr.
_____.

**Assistant Secretary (Assistant to a Cabinet Offi-
cer). Address:** Honorable _____,
Assistant Secretary of _____. *Begin:* Sir;
or Dear Mr. _____.

Associate Justice. Address: The Honorable
_____, United States Supreme
Court; or Mr. Justice _____. The Supreme
Court. *Begin:* Mr. Justice; or Dear Justice.

Baron. Address: The Right Honourable Lord
_____; or The Lord _____. *Begin:* My
Lord.

Baroness. Address: The Right Honourable the
Baroness _____; or The Lady _____.
Begin: Madam.

Baronet. Address: Sir John _____, Bt. or
Bart. *Begin:* Sir.

Baronet's wife. See Lady, below.

Baron's wife. See Baroness, above.

Bishop (Anglican). Address: The Right Rev-
erend the Lord Bishop of _____; or The
Lord Bishop of _____. *Begin:* My Lord
Bishop; or My Lord.

Bishop (Methodist). Address: Reverend Bishop
_____. *Begin:* Dear Sir; or My
dear Bishop _____.

Bishop (Protestant Episcopal). Address: To the
Right Reverend _____, Bishop of
_____. *Begin:* Right Reverend and Dear
Sir; or Dear Bishop _____.

Bishop (Roman Catholic). Address: The Most
Reverend _____, Bishop of
_____. *Begin:* Your Excellency; or Most
Reverend Sir.

Cabinet Officers (U. S.). Address: The Honora-
ble the Secretary of State (or Labor, etc.);
The Secretary of State, etc. *Begin:* Sir; or
My dear Mr. Secretary.

Canon. Address: The Very Reverend Canon
_____; or The Very Reverend
_____, Canon of _____. *Begin:* Very Re-
verend Canon; or Dear Canon _____.

Cardinal. Address: His Eminence John, Car-
dinal _____. *Begin:* Your Eminence.

Cardinal (if also an Archbishop). Address: His
Eminence _____, Cardinal _____, Arch-
bishop of _____. *Begin:* Your Eminence.

Chargé d'Affaires. Address: The Chargé d'Af-
faires of _____; or _____, Esq.,
Chargé d'Affaires. *Begin:* Dear Sir; or My
dear Mr. _____.

Chief Justice of the U. S. Address: The Chief
Justice of the U. S.; or The Chief Justice,
The Supreme Court, Washington, D. C.
Begin: My dear Mr. Chief Justice; or Sir.

Clergyman. Address: The Reverend _____; or (if doctor of divinity) The Rev. Dr. _____. Begin: Dear Sir; or Reverend Sir.

Clerk of Senate or House. Address: The Honorable _____, Clerk of _____. Begin: Sir; or Dear Sir.

Commissioner of Bureau. Address: The Honorable _____, Commissioner of the Bureau of _____. Begin: Sir; or Dear Sir.

Congressman. Address: Honorable James H. Smith, House of Representatives. Begin: Sir; or Dear Sir.

Consul. Address: To the American Consul at _____; or _____, Esq., American Consul at _____. Begin: Dear Sir.

Countess. Address: To the Right Honourable The Countess of _____. Begin: Madam.

Dame. Address: Dame _____. Begin: Madam.

Deacon. (Anglican and Protestant Episcopal). Address: The Reverend Deacon _____. Begin: Reverend Sir.

Dean (Ecclesiastic). Address: The Very Reverend the Dean of _____. Begin: Very Reverend Sir; or Sir.

Dean, Rural (Roman Catholic Church). Address: The Very Reverend _____, R.D., or V.F. Begin: Very Reverend Father.

Dean of a College or Graduate School. Address: Dean _____. Begin: Dear Sir; or Dear Dean _____.

Divorced woman. Address: Ordinarily use the maiden name with Mrs. Some divorced women prefer to resume the Miss.

Doctor of Divinity. Address: _____, D.D.; or Rev. Dr. _____. Begin: Dear Sir; or Dear Dr. _____.

Doctor of Philosophy, Laws, Medicine, etc. Address: _____, Ph.D. (LL.D.) (M.D.); or Dr. _____. Begin: Dear Sir; or Dear Dr. _____.

Dowager. See *Widow*, below.

Duchess. Address: Her Grace the Duchess of _____; or The Most Noble the Duchess of _____. Begin: Madam; or Your Grace.

Duchess of the Blood Royal. Address: Her Royal Highness The Duchess of _____. Begin: Madam; or May it please your Royal Highness.

Duke. Address: His Grace the Duke of _____; or The Most Noble the Duke of _____. Begin: My Lord Duke; or Your Grace.

Duke of the Blood Royal. Address: His Royal Highness The Duke of _____. Begin: Sir; or May it please your Royal Highness.

Earl. Address: The Right Honourable The Earl of _____; or The Earl of _____. Begin: My Lord.

Earl's wife. See *Countess*, above.

Envoy. Same as Minister (Diplomatic).

Esquire. Address: _____, Esq. Begin: Sir; or Dear Mr. _____. (Note.—Esq. is never used if the person is addressed by any other title, even Mr.)

Governor. Address: (In Mass. and by court in some other states) His Excellency, The Governor of _____; or His Excellency _____; or (in other states of the U. S.) The Honorable the Governor of _____; or Hon. _____. Governor of _____. Begin: Sir; or Dear Sir.

Governor-General of Canada. Address: His Excellency The Right Honourable _____, (plus rank or title, if any). Begin: My Lord; or Sir.

Governor-General's wife. Address: Her Excellency _____. Begin: Madam.

Judge (U.S.A.). Address: The Honorable _____, U. S. District Judge. Begin: Dear Sir; or My dear Judge _____.

King. Address: The King's Most Excellent Majesty; or His Most Gracious Majesty, King _____. Begin: Sir; or May it please your Majesty.

King's Counsel. Address: To _____, Esq., K.C. Begin: Sir.

Knight. Address: Sir John _____ (initials of his order, if any, as K.C.B.). Begin: Sir.

Knight's wife. See *Lady*, below.

Lady. Address: Lady _____, or (if daughter of a baron or viscount) Hon. Lady _____; or (if the daughter of an earl, marquises, or duke) Lady Florence _____. Begin: Madam; or Your Ladyship.

Lawyer. Address: _____, Esq.; or Mr. _____, Attorney at Law. Begin: Dear Sir; or My dear Mr. _____.

Lieutenant Governor. Address: The Honorable _____, Lt. Governor of _____. Begin: Sir; or Dear Sir.

Maid of Honor. Address: The Honourable Miss _____. Begin: Madam.

Marchioness. Address: The Most Honourable the Marchioness of _____. Begin: Madam.

Marquis. Address: The Most Honourable the Marquis of _____; or The Marquis of _____. Begin: My Lord Marquis.

Mayor (in Canadian cities and towns, and English boroughs). Address: The Right Worshipful the Mayor of _____ (English); His Worship, The Mayor of _____ (Canadian). Begin: Sir.

Mayor (in the U. S.). Address: The Honorable _____, Mayor of _____; or The Mayor of the City of _____. Begin: Sir; or Dear Mr. Mayor.

Member of Parliament (or of a Provincial Legislative Council or Legislature, etc.) To the ordinary form of address add M.P. (or M.P.P.; or M.L.A., etc.). Begin: Sir.

Minister (Diplomatic). Address: The Honorable _____, Minister of _____. Begin: Sir; or My dear Mr. Minister.

Minister (Religious). See *Clergyman*, above.

Moderator (Presbyterian Church). Address: The Right Reverend _____. Begin: Right Reverend Sir.

Monsignor. Address: The Right Reverend Monsignor _____. Begin: Right Reverend and dear Monsignor.

dis- Reverend Superior of a Sisterhood. Address: The Reverend Mother Superior, Convent of _____; or Reverend Mother _____, O.S.D. (or other initials of the order). *Begin:* Reverend Mother; or Dear Madam.

Naval Officers. Address: The Admiral of the Navy of the U. S.; or Captain _____, U.S.N. *Begin:* Sir; or Dear Commander _____; but for officers below the rank of commander, Dear Mr. _____.

Nun. See *Sister of a Religious Order*, listed below.

Papal Nuncio or Internuncio or Apostolic Delegate. Address: His Excellency, The Papal Nuncio (or Internuncio or Apostolic Delegate) to _____. *Begin:* Your Excellency.

Patriarch (Eastern Church). Address: His Beatitude the Patriarch of _____; or His Beatitude the Lord _____, Patriarch of _____. *Begin:* Most Reverend Lord; or Your Beatitude.

Pope. Address: To His Holiness Pope _____. *Begin:* Most Holy Father; or Your Holiness.

President of a College or University. Address: _____, LL.D. (or if he is not an LL.D., use the initials of his highest degree), President of _____ University; or President, _____ University. If he is a clergyman, address as Reverend _____, LL.D., President of _____ University. *Begin:* Dear Sir; or Dear President _____.

President of a Theological Seminary. Address: The Rev. President _____. *Begin:* Dear Sir; or Dear President _____.

President of State Senate. Address: The Honorable _____, President of the Senate of _____. *Begin:* Sir.

President of the Senate of the U. S. Address: The Honorable, The President of the Senate of the U. S.; or The Honorable _____, President of the Senate. *Begin:* Sir.

President of the U. S. Address: The President, The White House. *Begin:* Mr. President; or The President; or My dear Mr. President.

Priest (Roman Catholic Church). Address: Reverend _____, O.S.M. (or other initials of his order). *Begin:* Dear Father _____ (religious name).

Prime Minister of Canada. Address: The Right Honourable _____, P.C., Prime Minister of Canada. *Begin:* Sir.

Prince of the Blood Royal. Address: His Royal Highness Prince _____. *Begin:* Sir.

Prince of Wales. Address: His Royal Highness The Prince of Wales. *Begin:* Sir; or May it please your Royal Highness.

Princess of the Blood Royal. Address: Her Royal Highness the Princess _____ (Christian name). *Begin:* Madam.

Privy Councillor (British Imperial). Address: To the Right Honourable _____, P.C. *Begin:* Sir. Note.—If other titles are used, they should come after *The Right Honourable*; as, *The Right Honourable Sir John* _____.

Privy Councillor (of Canada). Address: The Honourable _____. *Begin:* Sir.

Professor in a College or University. Address: Professor _____; or _____, Ph.D. (or LL.D., M.D., etc., using only the initials of his highest degree, if the degrees are in the same field), Professor of _____. *Begin:* Dear Sir; or My dear Professor.

Professor in a Theological Seminary. Address: The Reverend Professor _____. *Begin:* or The Rev. _____, D.D. *Begin:* Dear Sir; or Dear Professor _____.

Queen. Address: The Queen's Most Excellent Majesty; or Her Gracious Majesty, The Queen. *Begin:* Madam; or May it please your Majesty.

Queen Mother. Address: Her Gracious Majesty Queen _____. *Begin:* Madam; or May it please your Majesty.

Rabbi. Address: Rabbi _____; or The Rev. _____. *Begin:* Reverend Sir; or My dear Rabbi _____. (If he holds a doctor's degree, Dr. may be substituted for Rabbi.)

Rector of a Religious House or of a Seminary. Address: The Very Reverend _____, O.S.B. (or other initials of order), Rector, Brothers of St. Francis. *Begin:* Very Reverend and dear Father (or Brother).

Representative. See *Congressman*, above.

Senator (U. S.) Address: The Honorable _____, the U. S. Senate, Washington, D. C. *Begin:* Dear Sir; or My dear Senator.

Sister of a Religious Order. Address: Sister _____, (followed by the initials of the order). *Begin:* Dear Sister; or My dear Sister _____.

Speaker of the House of Commons (Canada). Address: The Honourable _____, The Speaker of the House of Commons. *Begin:* Dear Mr. Speaker.

Speaker of the House of Representatives of the U. S. Address: The Honorable _____, Speaker of the House of Representatives. *Begin:* Sir; or My dear Mr. Speaker.

State Senator. Like Senator (U. S.).

Undersecretary of State (U.S.A.). Address: The Undersecretary of State; or The Honorable _____, Undersecretary of State. *Begin:* Sir; or Dear Mr. _____.

Vice-President. Address: The Vice-President; or The Honorable _____, Vice-President of the U. S. *Begin:* Mr. Vice-President; or Sir.

Viscount. Address: The Right Honourable the Viscount _____; or The Viscount _____. *Begin:* My Lord.

Viscountess. Address: The Right Honourable the Viscountess _____; or The Viscountess _____. *Begin:* Madam.

Widow. Address: Ordinarily address by her former title; as, Mrs. John Smith, not Mrs. Mary Alice Smith, unless the latter form is preferred by the person herself.

THE UNITED STATES



STATES, TERRITORIES AND CITIES

(State flower, bird, etc. are official unless otherwise indicated; dates in parentheses are those of adoption. Area is total of land and inland water. Estimated population figures for 1957 are as of July 1 and are provisional. Largest cities include incorporated places only.)

ALABAMA

Capital: Montgomery.
Governor: James E. Folsom, Dem. (to Jan. 1959).

Organized as territory: Mar. 3, 1817.
Entered Union & (rank): Dec. 14, 1819 (22).
Seceded from Union: Jan. 11, 1861.
Re-entered Union: July 13, 1868.
Present constitution adopted: 1901.
Motto: *Audemus jura nostra defendere* (We dare defend our rights).

State flower: Goldenrod (1927).
State bird: Yellowhammer (1927).
State song: "Alabama" (1931).
Nickname: Yellowhammer State.
Origin of name: Disputed. May come from Choctaw meaning "thicket-clearers" or "vegetarian-gatherers."

1940 population & (rank): 2,832,961 (17).
1950 population & (rank): 3,061,743 (17).
1957 estimated population: 3,151,000.
Area & (rank): 51,609 sq. mi. (29).
Geographic center: In Chilton Co., 12 mi. SW of Clanton.

Number of counties: 67.
Largest cities (1950 Census): Birmingham (326,037); Mobile (129,009); Montgomery (106,525); Gadsden (55,725); Tuscaloosa (46,396).

State forests: 6 (14,248.58 ac.).
State parks: 34 (39,619.6 ac.).
Total gross tax receipts (1956-57): \$618,203,837.
Total gross tax disbursements (1956-57): \$624,466,789.

Alabama is the leading heavy-industry state in the South. Textiles, iron and steel, and sawmill products lead its manufacturing, which centers around the "Pittsburgh of the South"—Birmingham. Industry is growing rapidly in other areas, including the Tennessee River Valley, with its great Muscle Shoals power plant. Lumber, marble, dolomite and petroleum are other important products. Alabama ranks high in the production of cotton, cattle, corn, hay, nuts, broiler chickens and sweet potatoes.

At Tuskegee Institute, founded by Booker T. Washington, Dr. George Washington Carver carried out his famed agricultural research.

The Confederacy was founded at Montgomery in Feb. 1861, and for a time the city was the Confederate capital.

In 1540, Hernando de Soto and his treasure seekers were the first white men to see the state, although Cabeza de Vaca may have preceded him in 1528.

ALASKA

Capital: Juneau.
Governor: First state Governor to be elected Nov. 1958 for 4-year term.

Organized as territory: 1912.
Entered Union: Formal admission to be early in 1959.

Constitution ratified: April 24, 1956.
Motto: None.
State flower: Forget-me-not.
State bird: Willow ptarmigan.
State song: "Alaska's Flag."
Nickname: Commonly called "The Last Frontier."

Origin of name: Corruption of native word meaning "great country."

1939 population: 72,524.
1950 population: 128,643.
1939-50 population change: +77.4%
1956 estimated population: 206,000.
Area & (rank): 586,400 sq. mi. (1).

Geographic center: 95 mi. south of Ft. Gibbon.
Number of counties: Will be decided by first state Legislature.

Largest cities (estimated 1957): Anchorage (31,000); Fairbanks (10,050); Ketchikan (7,500); Juneau (7,100).

State forests: None.
State parks: None.
General revenue (1957): \$23,176,578.

General expenditure (1957): \$21,488,080.
Alaska, newest and largest of the states, was called "Seward's Folly" in 1867, when that Secretary of State arranged for its purchase from Russia for \$7,200,000. Since then Alaska has returned approximately \$3,500,000,000 worth of products to the U. S.

Canned salmon is Alaska's principal product. It mines gold, supplies all domestically mined U. S. tin and also turns out platinum, coal, antimony, silver, mercury, tungsten and chromium.

The Pribilof Islands, in the Bering Sea, are famous as the breeding ground of the Alaska fur seal, which is under careful government control. Beaver, muskrat, otter, mink and other furs also abound. Alaska's first pulp mill at Ketchikan, constructed at a cost of \$54 million, began operation in 1954.

Mt. McKinley, in the south central part, is 20,300 feet high, the tallest peak in North America. With its wild interior, still partly unexplored, this territory is a hunter's paradise. With only 4.4 persons for every square mile, Alaska is by far the most thinly settled of the states. Sitka was its capital until 1912.

Alaska has magnificent glaciers and active volcanoes. Winter temperatures in the interior have been known to register 78° low zero. However, summer temperatures in the same area have been recorded at 99° above zero; and large parts of the territory, especially in the southeast, enjoy mild climate in both summer and winter.

Alaska's first state Governor was elected in Nov., 1958, to serve a 4-year term. The Legislature consists of a Senate and a House. Senators are elected to serve four years, while members of the House serve two years. The salaries of the Governor and the legislators will be set by the first state Legislature.

The Aleutians include the following island groups (and major islands): Fox Islands (Unimak, Akutan, Unalaska, Umnak); Islands of the Four Mountains (Chuginadak, Kagamil, Carlisle, Herbert); Andreanof Islands (Atka, Tanaga, Adak, Kanaga); Rat Islands (Kiska, Amchitka, Semisopochnoi, Rat); Near Islands (Agattu, Attu). In June 1942, the Japanese occupied Attu and Kiska. However, Attu was retaken by the U. S. in May 1943; Kiska was evacuated by the Japanese in Aug. 1943 after extensive shelling and bombing of the island.

Vitus Bering, a Dane working for the Russians, and Alexei Chirikov discovered Alaska and the Aleutians in 1741.

ARIZONA

Capital: Phoenix.

Governor: Ernest W. McFarland, Dem. (to Jan. 1959).

Organized as territory: Feb. 24, 1863.

Entered Union & (rank): Feb. 14, 1912 (48).

Present constitution adopted: 1911.

Motto: *Ditat Deus* (God enriches).

State flower: Flower of saguaro cactus (1931).

State bird: Cactus wren (1931).

State colors: Blue and old gold (1915).

State song: "Arizona," a march song (1919).

State tree: Palo Verde (1957).

Nickname: Grand Canyon State.

Origin of name: From the Indian "Arizonac," meaning "little spring."

1940 population & (rank): 499,261 (43).

1950 population & (rank): 749,587 (37).

1957 estimated population: 1,136,000

Area & (rank): 113,909 sq. mi. (6).

Geographic center: In Yavapai Co., 55 mi. SE of Prescott.

Number of counties: 14.

Largest cities (1950 Census): Phoenix (106,818);

Tucson (45,454); Mesa (16,790); Douglas

(9,442); Yuma (9,145).

State forests: None.

State parks: None.

State revenue (1956-57): \$226,192,243.

State expenditure (1956-57): \$225,442,779.

Manufacturing now ranks first among Arizona's revenue-producing industries. Next in rank is the mining of copper, gold, vanadium, uranium and silver, the production of copper exceeding that of any other state.

Agriculture is the third largest revenue-producing industry. By means of irrigation, its once arid acres produce alfalfa, cotton, wheat, sorghum, vegetables, citrus fruits and

dates. Income from livestock ranks high from both range and feeder cattle.

Phoenix is a popular health and winter resort and a shipper of cotton and vegetables, Tucson is a winter resort, Douglas loads cattle and smelts copper, and Yuma is an agricultural center.

With the Hopi, Navajo (the largest in numbers) and Apache tribes, Arizona has the largest U. S. Indian population, spread over fourteen reservations. It also has some of the country's most famous scenery. In the north is the Grand Canyon; in the east are the Petrified Forest and Painted Desert.

Marcos de Niza, a Franciscan friar, entered the state in 1539 in search of the mythical Seven Cities of Cibola, and was followed a year later by Coronado.

ARKANSAS

Capital: Little Rock.

Governor: Orval Faubus, Dem. (to Jan. 1959).

Organized as territory: Mar. 2, 1819.

Entered Union & (rank): June 15, 1836 (25).

Seceded from Union: May 6, 1861.

Re-entered Union: June 22, 1868.

Present constitution adopted: 1874.

Motto: *Regnat populus* (The people rule).

State flower: Apple Blossom (1901).

State tree: Pine (1939).

State bird: Mockingbird (1929).

State song: "The Arkansas Traveler" (1949).

Nickname: Land of Opportunity.

Origin of name: From the Quapaw Indians.

1940 population & (rank): 1,949,387 (24).

1950 population & (rank): 1,909,511 (30).

1957 estimated population: 1,768,000.

Area & (rank): 53,102 sq. mi. (27).

Geographic center: In Pulaski Co., 12 mi. N of W of Little Rock.

Number of counties: 75.

Largest cities (1950 Census): Little Rock (102,213); Fort Smith (47,942); North Little Rock (44,097); Pine Bluff (37,162); Hot Springs (29,307).

State forests: None.

State parks: 13 (19,079 ac.).

State general & special revenue (1956-57): \$128,736,960.

State general expenditure (1956-57): \$132,026,422.

About 90 per cent of the nation's bauxite—the source of aluminum—comes from the earth of Arkansas, which also contains North America's only known diamond mine, located in Pike County near Murfreesboro, and presently used as a tourist attraction on a "finders-keepers" basis.

The state is almost equally divided between mountains and delta areas. Arkansas has an equable southern climate and fertile central valleys which grow cotton, rice, wheat, corn, oats, potatoes and fruit. Other industries are oil production, lumbering and production of whetstones and antimony ore.

Hot Springs entertains fifteen times its population in guests each year. Its forty-seven famous curative mineral springs, the only ones administered by the Federal Government, are in Hot Springs National Park in the Ouachita Mountains. Pine Bluff has the largest archery factory in the country.

CALIFORNIA

Capital: Sacramento.

Governor: Goodwin J. Knight, Rep. (to Jan. 1959).

Entered Union & (rank): Sept. 9, 1850 (31).

Present constitution adopted: 1879.

Motto: *Eureka* (I have found it).

State flower: Golden poppy (1903).

State tree: California redwoods (*Sequoia sempervirens* & *Sequoia gigantea*) (1937 & 1953).

State bird: California valley quail (1931).

State animal: California grizzly bear (1953).

State fish: California golden trout (1947).

State insect: California dog-face butterfly (unofficial).

State colors: Blue and gold (1951).

State song: "I Love You, California" (1951).

Nickname: Golden State.

Origin of name: From a book, *Amadis de Gaula*, by García Ordóñez de Montalvo, c. 1500.

1940 population & (rank): 6,907,387 (5).

1950 population & (rank): 10,586,223 (2).

1957 estimated population: 13,922,000

Area & (rank): 158,693 sq. mi. (3).

Geographic center: In Madera Co., 35 mi. NE of Madera.

Number of counties: 58.

Largest cities (1950 Census): Los Angeles (2,104,663); San Francisco (798,000); Oakland (397,000); San Diego (434,924); Long Beach (262,000).

State forests: 8 (70,235 ac.).

State parks and beaches: 147 (600,000 ac.).

State general revenue (Est. 1957-58): \$1,144,524,-507.

State general expenditure (Est. 1957-58): \$1,157,-636,678.

California earns more money from raising food and catching fish than any other state, and it stands high in oil production, lumbering and manufacturing. It has more motor vehicles than any other state or any foreign country. Out-of-state tourist visitors and the travel and recreation expenditures of the state's residents continue to play an important part in the expansion of trade and employment opportunities. Irrigation makes possible the production of more than 200 commercial crops.

Nature is spectacular. Death Valley, in the southeast, is 282 feet below sea level, the lowest spot in the nation; Mt. Whitney, a 14,495-foot peak, is the highest point in the U. S.; Lassen Peak is the only active U. S. volcano although its last eruptions were recorded in the years from 1914 to 1917; and the General Sherman Tree in Sequoia National Park is estimated to be about 3,500 years old. San Pedro is the world's largest man-made harbor, and the Bank of America National Trust and Savings Association, operated and owned by the Glanini family, is the largest privately owned bank in the world.

Gold, which was responsible for the state's settlement boom, is still found here, but the state's most important mineral products today are oil, natural gas and its liquids, cement, liquefied petroleum gases, miscellaneous stones, salines, iron ore, tungsten.

California is a leader in electrical energy, and its cities specialize in aircraft and parts, missiles, food processing, electrical and electronic equipment, machinery and fabricated metal products.

California's 4 national parks are great tourist attractions, and the San Francisco-Oakland and Golden Gate bridges are among the world's engineering marvels.

Juan Rodríguez Cabrillo, Portuguese navigator, was probably the first white man to see the state in 1542.

COLORADO

Capital: Denver.

Governor: Stephen L. R. McNichols, Dem. (to Jan. 1959).

Organized as territory: Feb. 28, 1861.

Entered Union & (rank): Aug. 1, 1876 (38).

Present constitution adopted: 1876.

Motto: *Nil sine Numine* (Nothing without Providence).

State flower: Rocky Mountain columbine (1899).

State tree: Colorado blue spruce (1939).

State bird: Lark bunting (1931).

State colors: Blue and white (1911).

State song: "Where the Columbines Grow" (1915).

Nickname: Centennial State.

Origin of name: From the Spanish, meaning "red."

1940 population & (rank): 1,123,296 (33).

1950 population & (rank): 1,325,089 (34).

1957 estimated population: 1,673,000.

Area & (rank): 104,247 sq. mi. (8).

Geographic center: In Park Co., 30 mi. NW of Pikes Peak.

Number of counties: 63.

Largest cities (1950 Census): Denver (415,786);

Pueblo (63,685); Colorado Springs (45,472);

Greeley (20,354); Boulder (19,999).

State forests: 1 (70,980 ac.).

Total state revenue (1957): \$317,061,953.

Total state expenditure (1957): \$318,848,905.

Colorado, the most elevated state in the nation, with 54 of its peaks over 14,000 feet in height and more than 1,000 going beyond the 10,000-foot mark, began as a miner of gold but has been predominantly agricultural in recent times. Livestock, wheat, hay, beans, sugar beets, corn, potatoes, barley and truck vegetables head the crop list. Like California and Arkansas, the state has a highly developed irrigation system to counteract its dry climate and promote farming.

Colorado is one of the nation's largest producers of uranium and vanadium; also mined are gold, silver, lead, zinc, copper, molybdenum, coal and several nonmetallics. The state is also a leading oil producer.

Pueblo, the "Pittsburgh of the West," makes iron, steel, brick, tile and foundry products. Colorado Springs is perhaps the most popular tourist center in the Rocky Mountain sector. Mount Evans Highway is the highest auto road in North America. The world's highest suspension bridge stretches 1,053 feet over the Royal Gorge of the Arkansas River. Summit Lake, 12,740 feet high,

near the top of Mt. Evans, is the highest lake in the U. S. reached by an auto road.

Of archeological interest are the cliff dwellings in the southwestern part of the state.

Coronado entered the state in 1540.

CONNECTICUT

Capital: Hartford.

Governor: Abraham A. Ribicoff, Dem. (to Jan. 1959).

Entered Union & (rank): Jan. 9, 1788 (5).

Present constitution adopted: 1818; revised effective 1955.

Motto: *Qui transtulit sustinet* (He who transplanted still sustains).

State flower: Mountain laurel (1907).

State tree: White oak (1947).

State bird: American robin (1943).

State song: None.

Nicknames: Constitution State; Nutmeg State; Land of Steady Habits.

Origin of name: From an Indian word meaning "beside the long tidal river."

1940 population & (rank): 1,709,242 (31).

1950 population & (rank): 2,007,280 (28).

1957 estimated population: 2,252,000.

Area & (rank): 5,009 sq. mi. (47).

Geographic center: In Hartford Co., at East Berlin.

Number of counties: 8.

Largest cities (1950 Census): Hartford (177,397); New Haven (164,443); Bridgeport (158,709); Waterbury (104,477); Stamford (74,293).

State forests: 26.

State parks: 72.

State general revenue (1957): \$278,459,450.

State general expenditure (1957): \$263,852,468.

Connecticut earned its sobriquet, the "Arsenal of the Nation," by its ability to turn out firearms and ammunition in early days, and from this developed an ability to turn out precision instruments of all classes.

Connecticut's cities produce a variety of products, some of which are: arms, sewing machines, airplanes, typewriters, motors, hardware, cutlery, tools, clocks, locks, pottery, machinery, brass products and hats. Hartford, which has the oldest U. S. newspaper, the *Courant*, established in 1764, is the insurance capital of the nation.

Connecticut devotes its farmland mainly to dairying, fruit growing and poultry raising. It stands high in tobacco growing and no crop in the nation receives as high a price per acre as her shade-grown tobacco.

The state is a popular resort area both for its beaches on Long Island Sound and for its inland lakes and forested hills. The southwest part of the state is a suburban area of New York City.

Connecticut was the first state to have a written constitution, the *Fundamental Orders*, adopted by three original towns of Colonial days in Jan. 1639.

DELAWARE

Capital: Dover.

Governor: J. Caleb Boggs, Rep. (to Jan. 1961).

Entered Union & (rank): Dec. 7, 1787 (1).

Present constitution adopted: 1897.

Motto: Liberty and Independence.

State colors: Colonial blue and buff.

State flower: Peach blossom.

State tree: American holly.

State bird: Blue hen chicken.

State song: "Our Delaware."

Nicknames: Diamond State; Blue Hen State; First State.

Origin of name: In honor of Sir Thomas West, Lord De La Warr.

1940 population & (rank): 266,505 (46).

1950 population & (rank): 318,085 (46).

1957 estimated population: 438,000.

Area & (rank): 2,399.2 sq. mi. (48).

Geographic center: In Kent Co., 11 mi. S of Dover.

Number of counties: 3.

Largest cities (1950 Census): Wilmington (110,356); Newark (6,731); Dover (6,223);

New Castle (5,396); Elsmere (5,314).

State forests: 6 (4,945 ac.).

State parks: 3.

State general revenue (fiscal 1957): \$47,891,585.

State general expenditure (fiscal 1957): \$53,704,138.

Little Delaware, at the lowest mean elevation of any state, grows a great variety of small fruit and vegetables and is a U. S. pioneer in the industry of food canning. Peaches, strawberries, apples, corn, wheat, lima beans, asparagus, tomatoes and hay are the leading crops. Fishing in the bay is an important industry. Delaware's chicken farms are one of the great supply sources for the big markets of the East.

Manufactures in Delaware include chemicals, vulcanized fiber, glazed kid and morocco leathers, textiles, paper, dental supplies, metal products, machinery, machine tools and transportation equipment of every major type. In 1844, the *Bangor*, the first iron seagoing propeller-type vessel constructed in the U. S., was launched at Wilmington.

Delaware was the first state to ratify the U. S. Constitution, on Dec. 7, 1787. During the Civil War, although a slave state, Delaware refused to secede from the Union; the southern part of the state, however, supplied many supporters to the Confederacy.

Henry Hudson discovered Delaware Bay in his exploration of 1609. First settlers in the state were Dutchmen, who arrived in 1631, but who were shortly afterwards massacred by the Indians.

DISTRICT OF COLUMBIA

(City of Washington)

Land ceded to Congress: 1788 by Maryland; 1789 by Virginia (retroceded to Virginia Sept. 7, 1846).

Seat of government transferred to D. C.: Dec. 1, 1800.

Created municipal corporation: Feb. 21, 1871.

Present form of government established: June 11, 1878.

President of Board of Commissioners: Robert E. McLaughlin.

Motto: *Justitia omnibus* (Justice to all).

Official flower: American beauty rose.

Origin of name: In honor of Columbus.

1940 population & (rank as city): 663,091 (11);

1950 population & (rank as city): 802,178 (9).

1957 estimated population: 831,000.

Area: Land, 69.41 sq. mi.; inland water, 7.84.

Geographic center: Near corner of Fourth and L Sts., NW.

Altitude: Highest, 420 ft.; lowest, sea level.

Location: Between Virginia and Maryland, on Potomac River.

Churches: Protestant, 428; Roman Catholic, 40; Jewish, 21; others, 21.

City parks: 780 (6,945.5 ac.).

Telephones (Mar. 1, 1956): 553,507.

Radio sets: 250,400.

Television sets: 227,400.

Radio stations: AM, 7; FM, 8.

Television stations: 4.

Assessed valuation (June 1958): \$3,275,621,105.

City tax rate (1957): \$2.30 per \$100.

Bonded debt (1957): None.

Revenue (1957): \$190,558,806.

Expenditures (1957): \$198,366,611.

The District of Columbia—identical with the City of Washington—is the capital of the U. S. and the first carefully planned capital in the world.

D. C. history began in 1790 when Congress directed selection of a new capital site, 10 miles square, along the Potomac. When the site was determined, it included thirty and three-quarters square miles on the Virginia side of the river. In 1846, however, Congress returned that area to Virginia.

President Washington had commissioned Major Pierre L'Enfant, a French engineer who had fought in the Revolution, to plan the new capital and in 1800 the government moved in. In 1814, during the War of 1812, a British force fired the capital and it was from the white paint applied to cover fire damage that the President's home came to be called the White House.

Washington's skyline is dominated by the Capitol and the Washington Monument, towering 555 feet. The Capitol, while not in the city center, is the key to the street address system. The city is laid out in rectangular blocks, created by streets intersecting at right angles. In addition, diagonal arteries fan out from various centers. Pennsylvania Avenue—the radial lines are generally named for the states—is the most famous of them, with the White House at number 1600.

The Capitol is 751 feet long and 350 feet wide. It has 431 rooms. The two wings, constructed of marble, house the Senate and the House; and the central part of the building contains the Rotunda, the Statuary Hall and the old Supreme Court chamber. Visitors may go through the building from 9 A.M. until 4:30 P.M. Congress normally convenes at noon, and the floor of the Senate and House must be cleared by 11:45 A.M. The galleries in the Senate and House chambers are open to visitors during sessions.

Washington has many other famous buildings and monuments—the Library of Congress, Jefferson Memorial, Lincoln Memorial, Grant Memorial, Tomb of the Unknown Soldier (Arlington Cemetery), Treasury Building, the Pentagon, Petersen House (where Lincoln died) and scores of others.

Washington is administered by three commissioners appointed by the President. Two of them must be residents of the District of

Columbia and the third must be a U. S. Army engineer appointed by the Chief of Engineers.

FLORIDA

Capital: Tallahassee.

Governor: LeRoy Collins, Dem. (to Jan. 1961).

Organized as territory: Mar. 30, 1822.

Entered Union & (rank): Mar. 3, 1845 (27).

Seceded from Union: Jan. 10, 1861.

Re-entered Union: June 25, 1868.

Present constitution adopted: 1885.

Motto: In God we trust.

State flower: Orange blossom (1909).

State bird: Mockingbird (1927).

State song: "Suwannee River" (1935).

Nickname: Sunshine State.

Origin of name: From the Spanish, meaning "feast of flowers" (Easter).

1940 population & (rank): 1,897,414 (27).

1950 population & (rank): 2,771,305 (20).

1957 estimated population: 4,098,000.

Area & (rank): 58,666 sq. mi. (22).

Geographic center: In Citrus Co., 12 mi. W of N of Brooksville.

Number of counties: 67.

Largest cities (1950 Census): Miami (249,276);

Jacksonville (204,517); Tampa (124,681);

St. Petersburg (96,738); Orlando (52,367).

State forests: 4 (204,035 ac.).

State parks: 23 (74,936 ac.).

State government receipts (1956-57): \$540,000,000.*

State government expenditures (1956-57): \$550,000,000.*

* Excess of fiscal-year expenditures over receipts offset by \$117,000,000 surplus from previous fiscal year.

Industry and agriculture are Florida's biggest pursuits, but hotel statistics point to its chief fame—resorts and tourists. Along its coastline, the longest of any state, dozens of communities more than double in population during the winter season when northerners flee snow and cold.

Oranges and grapefruit lead Florida's crop list, then come tomatoes, tobacco, beans, celery, potatoes and field corn. Truck gardening, commercial fishing and cattle are leading industries. Deep-sea fishing for sport is a leading tourist hobby. Industry is becoming increasingly important, with metal-working and chemicals now added to lumber, paper and citrus processing. Tampa is one of the largest cigar manufacturers and Jacksonville ships lumber and turpentine.

Florida's low elevation is dotted by some 30,000 small lakes and the Everglades National Park in the south. St. Augustine, founded in 1565, is the oldest town of European origin in the U. S. Key West, exclusive resort city, is the southernmost city in the U. S. and is connected to the mainland by a unique causeway.

In 1513, Ponce de León, seeking the mythical "Fountain of Youth," was the first white man to see the state.

GEORGIA

Capital: Atlanta.

Governor: Samuel Marvin Griffin, Dem. (to Jan. 1959).

Entered Union & (rank): Jan. 2, 1788 (4).

Seceded from Union: Jan. 19, 1861.
 Re-entered Union: July 15, 1870.
 Present constitution adopted: 1945.
 Motto: Wisdom, justice and moderation.
 State flower: Cherokee rose (1916).
 State tree: Live oak (1937).
 State bird: Brown thrasher (1935).
 State song: "Georgia" (1922).
 Nicknames: Peach State; Empire State of the South.
 Origin of name: In honor of George II of England.
 1940 population & (rank): 3,123,723 (14).
 1950 population & (rank): 3,444,578 (13).
 1957 estimated population: 3,779,000.
 Area & (rank): 58,876 sq. mi. (21).
 Geographic center: In Twiggs Co., 18 mi. SE of Macon.
 Number of counties: 159.
 Largest cities (1950 Census): Atlanta (331,314); Savannah (119,638); Columbus (79,611); Augusta (71,508); Macon (70,252).
 State forests: 25,178,962 ac.
 State parks: 41 (60,794 ac.) (26 parks completed and open to public).
 State general revenue (1957): \$315,590,081.
 State general allocations (1957): \$311,557,757.

Georgia is typical of the changing South. The value of its factory products has passed the value of its farm products, and industrialization is ever increasing. Atlanta is achieving importance as an industrial center. Cotton and lumber products, fertilizer, processed food and a great variety of other items are among the factory output of Macon, Augusta, Savannah and Columbus.

Georgia ranks high in cotton, tobacco, peanuts and pecans. Georgia's peaches are nationally famous. From its vast stands of pine come more than half of all U. S. resin and turpentine. The state is one of the leaders in the value of its clay products. Cattle grazing is extensive. Georgia marble is widely used.

Warm Springs has the celebrated foundation operated to aid infantile paralysis victims. It was there that President Franklin D. Roosevelt died on April 12, 1945.

Hernando de Soto, a Spaniard, in 1540, looked over the red clay of Georgia, and General James Oglethorpe founded its first British colony Feb. 12, 1733, at Savannah.

IDAHO

Capital: Boise.
 Governor: Robert E. Smylie, Rep. (to Jan. 1959).
 Organized as territory: Mar. 3, 1863.
 Entered Union & (rank): July 3, 1890 (43).
 Present constitution adopted: 1890.
 Motto: *Esto perpetua* (It is perpetuated).
 State flower: Syringa (1931).
 State tree: White pine (1935).
 State bird: Mountain bluebird (1931).
 State song: "Here We Have Idaho."
 Nicknames: Gem State; Gem of the mountains.
 Origin of name: From a Shoshoni Indian word meaning "sunup."
 1940 population & (rank): 524,873 (42).
 1950 population & (rank): 588,637 (43).
 1957 estimated population: 640,000.

Area & (rank): 83,557 sq. mi. (13).
 Geographic center: In Custer Co., 24 mi. S of W of Challis.
 Number of counties: 44, plus small part of Yellowstone Park.
 Largest cities (1950 Census): Boise (34,393); Pocatello (26,131); Idaho Falls (19,218); Twin Falls (17,600); Nampa (16,185); Lewiston (12,985).
 State forests: 925,000 ac.
 State parks: 4 (9,000 ac.).
 State revenue (1955-57): general fund, \$52,474,-893; special funds, \$223,808,239.
 State expenditure (1955-57): general fund, \$51,-281,791; special funds, \$222,066,426.

Idaho's huge investment in irrigation has advanced its agriculture well ahead of its mining. Idaho potatoes are eaten everywhere. The state grows apples and other fruits and wheat, corn and barley. There is light diversified manufacturing and Pocatello sells its cheese to a world market.

Idaho mines gold, silver, lead, zinc, copper and tungsten, and still has vast undeveloped mineral wealth. In its rugged central mountains is an area that is reachable only by pack horse. The forests of the state, covering at least one-third of the area, account for the fact that lumbering is extensive.

Tourist trade is important. Hunting and fishing are excellent. Sun Valley is a famed resort and attracts countless tourists to its swimming and skiing facilities.

ILLINOIS

Capital: Springfield.
 Governor: William G. Stratton, Rep. (to Jan. 1960).
 Organized as territory: Feb. 3, 1809.
 Entered Union & (rank): Dec. 3, 1818 (21).
 Present constitution adopted: 1870.
 Motto: State sovereignty, national union.
 State flower: Violet (1908).
 State tree: Oak (1908).
 State bird: Cardinal (1929).
 State song: "Illinois" (1925).
 State slogan: Land of Lincoln.
 Nickname: Prairie State.
 Origin of name: From an Indian word and French suffix meaning "tribe of superior men."
 1940 population & (rank): 7,897,241 (3).
 1950 population & (rank): 8,712,176 (4).
 1957 estimated population: 9,637,000.
 Area & (rank): 56,400 sq. mi. (24).
 Geographic center: In Logan Co., 28 mi. NE of Springfield.
 Number of counties: 102.
 Largest cities (1950 Census): Chicago (3,620,-962); Peoria (111,856); Rockford (92,927); East St. Louis (82,295); Springfield (81,628).
 State forests: 3 (10,278 ac.).
 State parks, memorials, conservation areas: 74 (37,447 ac.).
 State revenue (1957): \$875,240,057.
 State expenditure (1957): \$837,291,710.
 Illinois anchors the Midwest like a rich giant, versatile in every big wealth-making industry. It stands high in manufacturing, coal mining, farm cash income, oil production. The sprawling Chicago district (including a slice of Indiana) is a great iron

and steel producer, meat packer, grain exchange and railroad center. Chicago is also a busy long-flight airport city and Great Lakes port area. The Illinois sand and gravel business is exceeded only by that of California.

In agriculture, Illinois is first in soy beans and high in corn, oats, wheat, barley, rye, potatoes and truck vegetables. Hog raising and dairying are important industries of the state.

Illinois manufactures almost everything. Railroad cars, clothing, furniture, tractors, liquor, watches and farm implements are some of the items made in several of its cities. An important U. S. arsenal is located on a Mississippi island off Rock Island.

Central Illinois is noted for shrines and memorials associated with the life and works of Abraham Lincoln, greatest son of Illinois. In Springfield are the Lincoln Home and Lincoln Tomb. At New Salem State Park, 20 miles northwest of Springfield, the reconstructed village of New Salem stands as a notable Lincoln memorial.

INDIANA

Capital: Indianapolis.

Governor: Harold W. Handley, Rep. (to Jan. 1961).

Organized as territory: May 7, 1800.

Entered Union & (rank): Dec. 11, 1816 (19).

Present constitution adopted: 1851.

Motto: The Crossroads of America.

State flower: Peony (1957).

State tree: Tulp tree (1931).

State bird: Cardinal (1933).

State song: "On the Banks of the Wabash, Far Away" (1913).

Nickname: Hoosier State.

Origin of name: Meaning "land of Indians."

1940 population & (rank): 3,427,796 (12).

1950 population & (rank): 3,934,224 (12).

1957 estimated population: 4,533,000.

Area & (rank): 36,291 sq. mi. (38).

Geographic center: In Boone Co., 14 mi. W of N of Indianapolis.

Number of counties: 92.

Largest cities (1950 Census): Indianapolis (427,173); Gary (133,911); Ft. Wayne (133,607); Evansville (128,636); South Bend (115,911).

State forests: 14 (113,880.46 ac.).

State parks: 18 (47,386.43 ac.).

State general revenue (1956-57): \$397,663,050.

State general expenditure (1956-57): \$422,777,987.

Indiana's fifty-one-mile Michigan waterfront is one of the great industrial centers of the world, turning out iron and steel and oil products to make this state a leader in manufacturing. Its cities have some of the world's largest industrial plants and their great output is further swelled by the inland factories. The list of products is endless—automobiles, farm implements, aviation and railroad equipment, sewing machines are made from iron ore mined in the Great Lakes region.

In farming the state stands high in soy beans, corn, tobacco, onions, wheat, oats, rye and tomatoes.

Indianapolis is the second largest U. S. city not on a navigable body of water. Wyandotte

Cave, the second largest in the U. S., is located in Crawford County of Southern Indiana. West Baden and French Lick are well known for their mineral springs. Indiana was one of the early states to adopt the secret ballot based on the Australian system.

IOWA

Capital: Des Moines.

Governor: Herschel C. Loveless, Dem. (to Jan. 1959).

Organized as territory: June 12, 1838.

Entered Union & (rank): Dec. 28, 1846 (29).

Present constitution adopted: 1857.

Motto: Our liberties we prize and our rights we will maintain.

State flower: Wild rose (1897).

State bird: Eastern goldfinch (1933).

State colors: Red, white and blue (in state flag).

State song: "Song of Iowa."

Nickname: Hawkeye State.

Origin of name: Probably from an Indian word meaning "I-o-w-a, this is the place."

1940 population & (rank): 2,538,268 (20).

1950 population & (rank): 2,621,073 (22).

1957 estimated population: 2,799,000.

Area & (rank): 56,280 sq. mi. (25).

Geographic center: In Marshall County, 2 1/2 mi. S of State Center.

Number of counties: 99.

Largest cities (1950 Census): Des Moines (177,965); Sioux City (83,991); Davenport (74,549); Cedar Rapids (72,296); Waterloo (65,198).

State forests: 7 (13,469 ac.).

State parks: 89 (28,437 ac.).

State general revenue (1956-57): \$152,040,936.

State general expenditure (1956-57): \$142,729,895.

Iowa stands in a class by itself as an agricultural state, supplying 10% of the nation's food supply. It ranks first in livestock income, value of beef marketed, production averages of oats and popcorn, and production of hogs, chickens, eggs, corn and timothy seed. Nearly 95% of the state's total acreage is in farms, and the fertility of its soil is unsurpassed. Of all the Grade A land in the country, 25% is in Iowa.

However, the value of Iowa's manufactured products exceeds that of her agricultural products. The top industrial activity is meat packing. Des Moines fittingly leads all cities in the publication of farm journals and is also a large insurance center.

Iowa has the highest functional literacy rate in the nation.

West Branch is the birthplace of Herbert Hoover, who was the first President of the U. S. to be born west of the Mississippi.

KANSAS

Capital: Topeka.

Governor: George Docking, Dem. (to Jan. 1959).

Organized as territory: May 30, 1854.

Entered Union & (rank): Jan. 29, 1861 (34).

Present constitution adopted: 1859.

Motto: *Ad astra per aspera* (To the stars through difficulties).

State flower: Sunflower (1903).
 State tree: Cottonwood (1937).
 State bird: Western meadow lark (1937).
 State animal: Buffalo (1955).
 State song: "Home on the Range" (1947).
 State march: "The Kansas March" (1935).
 Nicknames: Sunflower State; Jayhawk State.
 Origin of name: From a Siouan word meaning "people of the south wind."
 1940 population & (rank): 1,801,028 (29).
 1950 population & (rank): 1,905,299 (31).
 1957 estimated population: 2,136,000.
 Area & (rank): 82,276 sq. mi. (14).
 Geographic center: In Barton Co., 15 mi. NE of Great Bend.
 Number of counties: 105.
 Largest cities (1950 Census): Wichita (168,279); Kansas City (129,553); Topeka (78,791); Hutchinson (33,575); Salina (26,176).
 State forests: 1 (4,000 ac.).
 State parks: 22 (14,394 ac.).
 State operating revenue (1956-57): \$251,837,084.
 State operating expenditure (1956-57): \$263,663,-611.

Kansas finds its strength in wheat growing, flour milling and a variety of manufacturing enterprises. Slaughtering and meat packing are also extensively pursued. In the western part of the state, where Dodge City recalls the old days of cattle rustling, rich prairie land sprawls over a large area and gives an abundance of winter wheat and fine grazing.

Corn, sorghums, oats, barley, soy beans and potatoes are other crops. Besides oil, Kansas mines zinc, coal, salt and lead.

The state is the geographical center of the U. S., and the geodetic center of the North American continent.

Wichita, a growing industrial center, is a leader in the production of military and civilian aircraft. Kansas City is a transportation, milling, and meat-packing center.

After being dry since the Murray Liquor Law of 1881, Kansas repealed prohibition in March 1949.

Points of unusual interest in Kansas include: President Eisenhower's boyhood home and the new Eisenhower Memorial Museum at Abilene; the geographic center of the U. S. at Lebanon; John Brown's well-preserved cabin at Osawatimie; and two historic military reservations—Ft. Leavenworth and Ft. Riley.

KENTUCKY

Capital: Frankfort.
 Governor: A. B. Chandler, Dem. (to Dec. 1959).
 Entered Union & (rank): June 1, 1792 (15).
 Present constitution adopted: 1891.
 Motto: United we stand, divided we fall.
 State flower: Goldenrod.
 State bird: Kentucky cardinal.
 State song: "My Old Kentucky Home."
 Nickname: Blue Grass State.
 Origin of name: From an Iroquoian Indian word "Ken-tah-ten" meaning "land of tomorrow."
 1940 population & (rank): 2,845,627 (16).
 1950 population & (rank): 2,944,806 (19).
 1957 estimated population: 3,040,000.
 Area & (rank): 40,395 sq. mi. (37).

Geographic center: In Marion Co., 3 mi. W of N of Lebanon.

Number of counties: 120.

Largest cities (1950 Census): Louisville (369,-129); Covington (64,452); Lexington (55,-534); Owensboro (33,651); Paducah (32,-828).

State forests: 3 (30,022 ac.).

State parks: 26 (16,888 ac.).

Total state revenue (1956-57): \$273,071,629.

Total state expenditure (1956-57): \$269,283,106.

Kentucky prides itself on producing some of the nation's best tobacco, horses and whisky. It stands high in the production of native asphalt, hemp, coal, corn, oil.

Among the manufactured items produced by its cities are furniture, aluminum ware, brooms, shoes, lumber products, machinery, textiles and iron and steel products. Besides coal and oil, important minerals are natural gas and quarry products.

Louisville, the largest city, famed for the Kentucky Derby at Churchill Downs, has a large municipal university, distills whisky and is a great cigarette maker. The Blue Grass country is the home of some of the world's finest race horses. Lexington, standing in the center of this country, is a leading tobacconist. Mammoth Cave, with its many miles of underground passages, is one tourist attraction. Another is Kentucky Lake, 184 miles wide, one of the largest man-made bodies of water in the world.

Kentucky was credited with a star in the Confederate flag because a secessionist group in the southwest part of the state set up a short-lived government and joined the Confederacy. The legitimate government, however, remained in the Union throughout the Civil War.

Marquette and Joliet in 1673 saw Kentucky when it was the "Dark and Bloody Ground," fiercely contested by Indian tribes. Daniel Boone explored the country in 1767.

LOUISIANA

Capital: Baton Rouge.

Governor: Earl K. Long, Dem. (to May 1960).

Organized as territory: Mar. 26, 1804.

Entered Union & (rank): Apr. 30, 1812 (18).

Seceded from Union: Jan. 26, 1861.

Re-entered Union: May 26, 1865.

Present constitution adopted: 1921.

Motto: Union, justice and confidence.

State flower: Magnolia (1900).

State bird: Pelican (unofficial).

State song: "Song of Louisiana."

Nicknames: Pelican State; Creole State; Sugar State.

Origin of name: In honor of Louis XIV of France.

1940 population & (rank): 2,363,880 (21).

1950 population & (rank): 2,683,516 (21).

1957 estimated population: 3,068,000.

Area & (rank): 48,523 sq. mi. (31).

Geographic center: In Avoyelles Parish, 3 mi. SE of Marksville.

Number of parishes (counties): 64.

Largest cities (1950 Census): New Orleans (570,445); Shreveport (127,206); Baton Rouge (125,629); Lake Charles (41,272); Monroe (38,572).

State forests: 1 (8,000 ac.).
 State parks: 15 (13,323 ac.).
 State general revenue (1956-57): \$585,676,498.
 State general expenditure (1956-57): \$576,966,961.

Louisiana, which still calls its counties parishes after the Spanish religious divisions, is one of the leading states in fur trapping, with a rich annual bag of mink, muskrat, opossum and raccoon pelts. Other important agricultural products are sugar cane, sweet potatoes, rice and cotton. The state is rapidly becoming industrialized, and is an important producer of petroleum and petrochemicals, pulp and paper, natural gas, sulfur, chemicals and salt.

New Orleans, home of the Mardi Gras, avoids flooding only by an expensive levee and spillway system. Its industry is making increased use of raw materials from South and Central America. The Vieux Carré, in this Old World city, called by many the "Little Paris" of the New World, has some of the celebrated restaurants of the nation.

Louisiana has a great variety and abundance of game birds. Its state-owned wildlife sanctuaries are among the world's largest.

Hernando de Soto, in the year 1540, is usually considered the first white man to see the state, but claims are made for Narvaez, who is reputed to have seen the state as early as 1528.

MAINE

Capital: Augusta.
 Governor: Edmund S. Muskie, Dem. (to Jan. 1959).
 Entered Union & (rank): Mar. 15, 1820 (23).
 Present constitution adopted: 1820.
 Motto: *Dirigo* (I guide).
 State flower: White pine cone and tassel (1895).
 State tree: Pine tree.
 State bird: Chickadee (1927).
 State song: "State of Maine Song" (1937).
 Nickname: Pine Tree State.
 Origin of name: From the French province of Mayne.
 1940 population & (rank): 847,226 (35).
 1950 population & (rank): 913,774 (35).
 1957 estimated population: 943,000.
 Area & (rank): 33,215 sq. mi. (39).
 Geographic center: In Piscataquis Co., 18 mi. N of Dover-Foxcroft.
 Number of counties: 16.
 Largest cities (1950 Census): Portland (77,634); Lewiston (40,974); Bangor (31,558); Auburn (23,134); South Portland (21,866).
 State forests: 1 (21,000 ac.).
 State parks: 6 (133,042 ac.).
 State general revenue (1957): \$102,885,254.
 State general expenditure (1957): \$96,351,815.

Two major changes in Maine's constitution were voted in 1957: (1) the state's general election is now held in November instead of September, making the expression "As Maine goes so goes the nation" no longer valid, and (2) the governor now has a 4-year term and may succeed himself.

Maine produces one out of every seven potatoes raised in the U. S., and 95% of the

nation's blueberries. The chicken broiler industry has climbed from \$300,000 after the last war to \$37 million today.

Maine is one of the world's largest pulp, paper producers. It ranks fifth in boot and shoe manufacturing. It has the largest forest area in the East, and planned cutting promises an unending wood supply for pulp, paper mills, lumber mills and hardwood processing plants.

The state leads the world in the production of the familiar flat tins of sardines, producing 200 million of them normally. Lobstermen catch 90% of the nation's total of true lobsters.

Of great importance is the state's vacation business, which amounts to over \$250 million annually. Visitors are drawn by the state's 2,500 lakes, 5,000 rivers and streams and 2,500 tidewater miles of coastline.

MARYLAND

Capital: Annapolis.
 Governor: Theodore R. McKeldin, Rep. (to Jan. 1959).
 Entered Union & (rank): Apr. 28, 1788 (7).
 Present constitution adopted: 1867.
 Motto: *Fatti maschii, parole femine* (Manly deeds, womanly words).
 State flower: Black-eyed susan (1918).
 State tree: White oak (1941).
 State bird: Baltimore oriole (1882).
 State song: "Maryland! My Maryland!" (1939).
 Nicknames: Free State; Old Line State.
 Origin of name: In honor of Henrietta Maria (Queen of Charles I of England).
 1940 population & (rank): 1,821,244 (28).
 1950 population & (rank): 2,343,001 (24).
 1957 estimated population: 2,895,000.
 Area & (rank): 12,303 sq. mi. (42).
 Geographic center: In Anne Arundel Co., 3 mi. E of Collington.
 Number of counties: 23, plus 1 independent city.
 Largest cities (1950 Census): Baltimore (949,708); Cumberland (37,679); Hagerstown (36,260); Frederick (18,142); Salisbury (15,141); Annapolis (10,047).
 State forests: 10 (118,978 ac.).
 State parks: 15 (13,535 ac.).
 State general revenue (1957): \$557,416,598.
 State general expenditure (1957): \$561,724,475.

Maryland is cut almost in two by Chesapeake Bay, and the many estuaries and rivers create one of the longest water fronts of any state. The Bay produces more seafood—oysters, crabs, clams, fin fish—than any comparable body of water, and is a major crabbing center. Important agricultural products are vegetables, tobacco, corn, wheat, soy beans, and dairy products. Maryland is a leader in vegetable canning and broiler raising. Sand and gravel, stone, coal, and clay are the chief mineral products.

Manufactures, which center in Baltimore include airplanes, steel, clothing, and chemicals. The port of Baltimore ranks second in the country in foreign trade tonnage. Baltimore is the home of the Johns Hopkins University and Hospital. In Annapolis, Stat

capital and home of the U. S. Naval Academy, is one of the earliest state houses (1772-1779) still in regular use by a State government.

The Charter of Maryland was granted in 1632 to Lord Baltimore, who died before it had passed the Great Seal; it was issued to his oldest son, Cecil. The first settlers landed at St. Mary's in 1634.

MASSACHUSETTS

Capital: Boston.

Governor: Foster Furcolo, Dem. (to Jan. 1959).

Entered Union & (rank): Feb. 6, 1788 (6).

Present constitution adopted: 1780.

Motto: *Ense petit placidam sub libertate quietem* (By the sword we seek peace, but peace only under liberty).

State flower: Mayflower (1918).

State tree: American elm (1941).

State bird: Chickadee (1941).

State colors: Blue and gold (in flag and shield).

State song: None.

Nicknames: Bay State; Old Colony State.

Origin of name: From two Indian words meaning "great mountain place."

1940 population & (rank): 4,316,721 (8).

1950 population & (rank): 4,690,514 (9).

1957 population: 4,866,000.

Area & (rank): 8,257 sq. mi. (45).

Geographic center: In Worcester Co., in N part of city of Worcester.

Number of counties: 14.

Largest cities (1955 State Census): Boston (724,702); Worcester (202,612); Springfield (166,052); New Bedford (105,488); Fall River (105,195).

State forests: 70 (170,000 ac.).

State parks: 21 (7,927 ac.).

State general revenue (1957): \$541,754,403.

State general expenditure (1957): \$566,506,194.

Massachusetts is the leading shoe producer in the U. S., and has been one of the leaders in the making of textiles since the beginning of American history. Top-ranking industries are electrical and other machinery, textile mill products, leather and leather products, and apparel and other finished goods. Logan International Airport at East Boston, the nearest point in the U. S. to Europe, ranks among the world's greatest aerodromes. It has one of the longest commercial runways (10,022 ft.) and the longest air passenger terminal building in the world (3,053 ft.).

The most valuable agricultural products, ranked in order of importance, are hay, tobacco, cranberries, apples, potatoes, corn and tomatoes. There is also a large livestock industry, especially poultry, and a nursery industry, especially carnations.

The growth of factories brought to this state an influx of foreigners and today Boston has one of the largest Irish populations in the nation. Boston became prominent as the "Cradle of Liberty" in early days and it was here that Paul Revere rode from Christ Church on Copp's Hill and the Battle of Bunker Hill was fought.

The Pilgrims landed at Plymouth Rock in 1620 as the first large group to settle here but legend has it that Eric the Red and his foremen saw the state in the year 1000.

MICHIGAN

Capital: Lansing.

Governor: G. Mennen Williams, Dem. (to Jan. 1959).

Organized as territory: Jan. 11, 1805.

Entered Union & (rank): Jan. 26, 1837 (26).

Present constitution adopted: 1908.

Motto: *Si quaeris peninsulam amoenam circumspice* (If you seek a pleasant peninsula, look around you).

State flower: Apple blossom (1897).

State bird: Robin (unofficial).

State animal: Wolverine (unofficial).

State song: "Michigan, My Michigan" (unofficial).

Nickname: Wolverine State.

Origin of name: From two Indian words meaning "great lake."

1940 population & (rank): 5,256,106 (7).

1950 population & (rank): 6,371,766 (7).

1957 estimated population: 7,803,000.

Area & (rank): 58,216 sq. mi. (23).

Geographic center: In Wexford Co., 5 mi. W of N of Cadillac.

Number of counties: 83.

Largest cities (1950 Census): Detroit (1,849,568); Grand Rapids (176,515); Flint (163,143); Dearborn (94,994); Saginaw (92,918).

State forests: 23 (3,744,082 ac.).

State parks: 60 (178,991 ac.).

State general revenue (1956-57): \$949,158,239.

State general expenditure (1956-57): \$1,020,666,414.

On a map of Michigan, draw an eighty-five-mile circle around Detroit and it will contain the home plants of the companies that make nine out of ten American automobiles. This industry, which sprang up about fifty years ago from the carriage-building business, is not the only activity of this state. Airplane parts, furniture (Grand Rapids is the furniture center of the U. S.), diesel engines, hoists, pumps, boilers are among its leading items of production. Most of the nation's refrigerators are made in Michigan. On its farms are grown dry beans, grapes, peaches, potatoes, sugar beets and other food crops.

Michigan is the only state that is split completely in two parts. The northern peninsula is mining and timber country. The southern part is agricultural and manufacturing country. Connecting Lakes Superior and Huron is the busiest canal in the world—the Sault Ste. Marie. Its 11,037 inland lakes and 2,242 miles of Great Lakes shoreline make Michigan a good vacation land.

Michigan has the greatest inland fisheries in the world and markets at least 20 species from carp, trout, perch, pike to lake herring. The artificial ski jump on Iron Mountain is probably the highest in the world.

MINNESOTA

Capital: St. Paul.

Governor: Orville L. Freeman, Dem. (to Jan. 1959).

Organized as territory: Mar. 3, 1849.

Entered Union & (rank): May 11, 1858 (32).

Present constitution adopted: 1858.

Motto: *L'Etoile du Nord* (The North Star).
State flower: Moccasin flower (1902).
State tree: Norway pine.
State bird: None.
State song: "Hall Minnesota."
Nicknames: North Star State; Gopher State; Land of 10,000 Lakes.
Origin of name: From a Dakota Indian word meaning "sky-tinted water."
1940 population & (rank): 2,792,300 (18).
1950 population & (rank): 2,982,483 (18).
1957 estimated population: 3,321,000.
Area & (rank): 84,068 sq. mi. (12).
Geographic center: In Crow Wing Co., 10 mi. SW of Brainerd.
Number of counties: 87.
Largest cities (1950 Census): Minneapolis (521,718); St. Paul (311,349); Duluth (104,511); Rochester (29,885); St. Cloud (28,410).
State forests: 32 (2,037,065 ac.).
State parks: 61 (84,350 ac.).
State general revenue (1957): \$631,284,647.
State general expenditure (1957): \$632,620,007.

A few square miles of Northern Minnesota, in the Mesabi, Cuyuna and Vermilion Ranges, produce most of the nation's iron ore, and provide the activity for the port of Duluth. Farm and factory are equally important in Minnesota. Its farms produce oats, butter, eggs, milk, corn, wheat, potatoes, etc. Its factory production follows the pattern of the Midwest. Machinery, furniture, foundry products, etc. are manufactured.

Minneapolis is the trade center of the Northwest. Its twin city St. Paul is the nation's biggest publisher of calendars and law books.

With over 11,000 lakes, the state is famous for its fishing, hunting and trapping.

Minnesota has many famous resort regions. Travel business for 1957 was estimated to exceed \$300 million.

In 1655, Radisson and Groseilliers, French traders from Canada, were the first white men to see the state.

MISSISSIPPI

Capital: Jackson.
Governor: J. P. Coleman, Dem. (to Jan. 1960).
Organized as territory: Apr. 7, 1798.
Entered Union & (rank): Dec. 10, 1817 (20).
Seceded from Union: Jan. 9, 1861.
Re-entered Union: Feb. 23, 1870.
Present constitution adopted: 1890.
Motto: *Virtute et armis* (By valor and arms).
State flower: Flower or bloom of the magnolia or evergreen magnolia (1952).
State tree: Magnolia (1938).
State bird: Mockingbird (1944).
State song: "Way Down South in Mississippi" (1948).
Nickname: Magnolia State.
Origin of name: From an Indian word meaning "Father of Waters."
1940 population & (rank): 2,183,796 (23).
1950 population & (rank): 2,178,914 (26).
1957 estimated population: 2,185,000.

Area & (rank): 47,716 sq. mi. (32).
Geographic center: In Leake Co., 9 mi. N of W of Carthage.
Number of counties: 82.
Largest cities (1950 Census): Jackson (98,271); Meridian (41,893); Biloxi (37,425); Greenville (29,936); Hattiesburg (29,474).
State forests: 1 (1,760 ac.).
State parks: 10 state-owned (10,972 ac.); 2 state-leased (1,910 ac.).
State general revenue (1957): \$213,291,403.
State general expenditure (1957): \$210,780,245.

Mississippi, the stronghold of the Old South, has until the past decade been one of the least industrialized states, with more than half its population making a living from the soil. A recent program of industrialization, however, has attracted numerous manufacturing concerns. Cotton, nevertheless, is still king. The world's largest cotton plantation of 35,000 acres is located at Scott. Other crops are corn, peanuts, oats, pecans, soybeans, rice, tung nuts, sugar cane and hay. There is a yearly income of \$356 million from forests and forest derivatives.

Mississippi's Central Hills have produced a serious soil-erosion problem due to the over-emphasis placed on cotton growing through the years. Introduction of livestock and dairying and the pasture improvement programs attendant to it have helped in recent years to remedy this situation.

Mississippi was first to ratify the 18th Amendment and is still one of the two states (the other, Oklahoma) that bans the sale of hard liquor. In 1950, it had the third largest Negro population in the U. S.

The state abounds in historical landmarks and is the home of the Vicksburg National Military Park commemorating Grant's victory

MISSOURI

Capital: Jefferson City.
Governor: James T. Blair, Jr., Dem. (to Jan. 1961).
Organized as territory: June 4, 1812.
Entered Union & (rank): Aug. 10, 1821 (24).
Present constitution adopted: 1945.
Motto: *Salus populi suprema lex esto* (The welfare of the people shall be the supreme law).
State flower: Hawthorn (1923).
State bird: Bluebird (1927).
State colors: Red, white and blue (1913).
State song: "Missouri Waltz" (1949).
State tree: Dogwood (1955).
Nickname: Show-me State.
Origin of name: From an Indian word probably meaning "muddy water."
1940 population & (rank): 3,784,664 (10).
1950 population & (rank): 3,954,653 (11).
1957 estimated population: 4,255,000.
Area & (rank): 69,226 sq. mi. (19).
Geographic center: In Miller Co., 20 mi. SW of Jefferson City.
Number of counties: 114, plus 1 independent city.
Largest cities (1950 Census): St. Louis (856,796); Kansas City (456,622); St. Joseph (78,588); Springfield (66,731); University City (39,892).
State forests: 8 (163,000 ac.).

State parks: 30 (70,000 ac.).
 State general revenue (1956-57): \$426,063,783.
 State general expenditure (1956-57): \$416,195,121.

Missouri, touching both South and North, ranks highest in mining lead, making corn-cob pipes and breeding mules. Sometimes called the "saddle horse capital of the world" because of its excellent breeds, this state also grows corn, wheat, oats, barley, potatoes, tobacco and cotton on its fertile table land climbing to the Ozark Mountains. This country of rugged, timbered hills and deep valleys, has more than 10,000 swift-flowing streams. It produces automobiles, shoes, drugs, chemicals, beer and street cars.

Eads Bridge, spanning the Mississippi River at St. Louis, probably handles more freight cars than any other bridge in the world. Bagnell Dam, across the Osage River in the Ozarks, completed in 1931, created one of the largest artificial lakes in the world, running for 129 miles and having a shoreline that extends for approximately 1,300 miles.

The homes of two of Missouri's most publicized sons—Mark Twain and Jesse James—are tourist attractions.

Missouri, like Kentucky, had a star in the Confederate flag because a minority of the state legislature adopted an ordinance of secession. The Governor and pro-secession legislature, however, were ousted and the state remained in the Union.

MONTANA

Capital: Helena.
 Governor: J. Hugo Aronson, Rep. (to Jan. 1961).

Organized as territory: May 26, 1864.
 Entered Union & (rank): Nov. 8, 1889 (41).
 Present constitution adopted: 1889.
 Motto: *Oro y plata* (Gold and silver).
 State flower: Bitterroot (1895).
 State tree: Ponderosa pine (1949).
 State bird: Western meadow lark (1931).
 State song: "Montana" (1945).
 Nickname: Treasure State.
 Origin of name: Chosen from Mexican dictionary by J. M. Ashley. It is a Mexicanized Spanish word.

1940 population & (rank): 559,456 (39).
 1950 population & (rank): 591,024 (42).
 1957 estimated population: 666,000.
 Area & (rank): 147,138 (4).
 Geographic center: In Fergus Co., 12 mi. W of Lewistown.

Number of counties: 56, plus small part of Yellowstone National Park.
 Largest cities (1950 Census): Great Falls (39,214); Butte (33,251); Billings (31,834); Missoula (22,485); Helena (17,581).
 State forests: 7 (686,000 ac.).
 State parks: 14 (2,802 ac.).
 State general revenue (1956-57): \$126,653,152.
 State general expenditure (1956-57): \$122,894,680.

Montana's story is the old Western story—few settlers until a gold strike in 1858 brought an influx. Mining is its present occupation, and lead, zinc, silver, coal and oil are taken from its earth.

Butte, sitting on the "richest hill in the world," is the center of the area that once supplied half of the U. S. copper (its most important mineral). Livestock, wool, lumber and dude ranching round out its interests. Agriculture is dependent on irrigation.

The state as a whole still possesses the frank character of the old days, reflected in the legend that the only reason Helena was selected as the name to replace Last Chance Gulch was because of the suggestion of profanity in the front part of that name. Glacier National Park is a popular tourist area with its rugged scenery, hunting areas and dude ranches. While little development has been made, Montana offers fine potentialities for winter sports.

NEBRASKA

Capital: Lincoln.
 Governor: Victor E. Anderson, Rep. (to Jan. 1959).

Organized as territory: May 30, 1854.
 Entered Union & (rank): Mar. 1, 1867 (37).
 Present constitution adopted: 1875.
 Motto: Equality before the law.
 State flower: Goldenrod (1895).
 State tree: American elm (1937).
 State bird: Western meadow lark (1929).
 State song: "My Nebraska" (unofficial).
 Nickname: Cornhusker State.
 Origin of name: From an Oto Indian word meaning "flat water."
 1940 population & (rank): 1,315,834 (32).
 1950 population & (rank): 1,325,510 (33).
 1957 estimated population: 1,452,000.
 Area & (rank): 77,407 sq. mi. (15).
 Geographic center: In Custer Co., 10 mi. NW of Broken Bow.
 Number of counties: 93.
 Largest cities (1950 Census): Omaha (251,117); Lincoln (98,884); Grand Island (22,682); Hastings (20,211); North Platte (15,433).

State forests: 2.
 State parks: 7 (1,036 ac.).
 State general revenue (1957): \$116,495,930.
 State general expenditure (1957): \$116,495,930.

Nebraska lives by its expansive sea of grain, reflected in its bumper crops of rye, corn and wheat. There are more varieties of grass growing in this state, valuable for forage, than in any other state in the nation. Its sizable cattle and hog industries help to make Omaha a great stockyard and meat-packing center. Flour, freight cars, farm machinery, precision instruments, brick and tile are products of Nebraska.

Oil was discovered in 1939, and natural gas in 1949. The state was 14th in oil production in the U. S. for 1956.

In 1937, Nebraska became the only state in the Union to have a unicameral (one-house) legislature. Members are elected to it without party designation.

NEVADA

Capital: Carson City.
 Governor: Charles H. Russell, Rep. (to Jan. 1959).

Organized as territory: Mar. 2, 1861.
 Entered Union & (rank): Oct. 31, 1864 (36).

Present constitution adopted: 1864.

Motto: All for our country.

State flower: Sagebrush (1917).

State tree: Pinyon pine (official).

State bird: Mountain bluebird (unofficial).

State colors: Blue and silver (unofficial).

State song: "Home Means Nevada" (1933).

Nicknames: Sagebrush State; Silver State; Battle Born State.

Origin of name: Spanish: meaning "snow-clad."

1940 population & (rank): 110,247 (48).

1950 population & (rank): 160,083 (48).

1957 estimated population: 267,000.

Area & (rank): 110,690 (7).

Geographic center: In Lander Co., 23 mi. SE of Austin.

Number of counties: 17.

Largest cities (1950 Census): Reno (32,497); Las Vegas (24,624); Sparks (8,203); Elko (5,393); North Las Vegas (3,875).

State forests: None.

State parks: 9 (11,337 ac.).

State general revenue (1957): \$65,779,365.

State general expenditure (1957): \$62,985,539.

Nevada, the smallest state in population, had in 1950 about one and one-half persons per square mile. It was made famous by the discovery of the fabulous Comstock Lode in 1859, and its mines have produced large quantities of gold, silver, copper, lead, zinc, quicksilver and tungsten. Oil was discovered in Feb. 1954. There are also uranium deposits.

In 1931, the state created a new industry by writing an easy divorce law and Reno has since become the "divorce capital of the nation." Gambling was legalized and the gaming tables now pay a tax to add to the state's income.

Near Las Vegas, on the Colorado River, stands the Hoover Dam which has twice changed its name (Hoover to Boulder to Hoover).

The state's agricultural crop consists mainly of hay, wheat, barley and potatoes.

Nevada was the first state to use gas for capital punishment.

NEW HAMPSHIRE

Capital: Concord.

Governor: Lane Dwinell, Rep. (to Jan. 1959).

Entered Union & (rank): June 21, 1788 (9).

Present constitution adopted: 1784.

Motto: Live free or die.

State flower: Purple lilac (1919).

State tree: White birch (1947).

State bird: Purple finch (1957).

State song: "Old New Hampshire" (1949).

Nickname: Granite State.

Origin of name: From the English county of Hampshire.

1940 population & (rank): 491,524 (45).

1950 population & (rank): 533,242 (44).

1957 estimated population: 572,000.

Area & (rank): 9,304 sq. mi. (44).

Geographic center: In Belknap Co., 3 mi. E of Ashland.

Number of counties: 10.

Largest cities (1950 Census): Manchester (82,-

732); Nashua (34,669); Concord (27,988); Portsmouth (18,830); Berlin (16,615).

State forests: 143 (55,769 ac.).

State parks: 33 (30,976 ac.).

State general revenue (1957): \$55,287,359.

State general expenditure (1957): \$69,236,244.

New Hampshire is the only state that ever played host at the formal conclusion of a foreign war when, in 1905, Portsmouth was the scene of the treaty ending the Russo-Japanese War. The sandy and stony loam of this state needs liberal fertilization for the growing of its principal crops—fruit, truck vegetables, corn, oats, hay and potatoes. Its chief manufacturing is the production of textiles, leather goods, pulp and paper products.

New Hampshire was the first state to declare its independence from Great Britain, and to adopt a constitution. Mt. Washington has recorded some of the world's strongest wind velocities, the last recording of record proportions being registered at 231 miles per hour. The state also has the largest legislative body; it varies from 375 to 400.

With 1,300 lakes and good climate for both winter sports and summer vacations, the state is highly popular as a resort area.

NEW JERSEY

Capital: Trenton.

Governor: Robert B. Meyner, Dem. (to Jan. 1962).

Entered Union & (rank): Dec. 18, 1787 (3).

Present constitution adopted: 1947.

Motto: Liberty and prosperity.

State flower: Purple violet (1913).

State bird: Eastern goldfinch (1935).

State tree: Red oak (1950).

State colors: Blue and gold.

State song: None.

Nickname: Garden State.

Origin of name: From the Channel Isle of Jersey.

1940 population & (rank): 4,160,165 (9).

1950 population & (rank): 4,835,329 (8).

1957 estimated population: 5,627,000.

Area & (rank): 8,204 sq. mi. (46).

Geographic center: In Mercer Co., 5 mi. SE of the State capitol.

Number of counties: 21.

Largest cities (1950 Census): Newark (438,776).

Jersey City (299,017); Paterson (139,336).

Trenton (128,009); Camden (124,555).

State forests: 11 (155,114 ac.).

State parks: 23 (26,825 ac.).

State general revenue (1956-57): \$531,072,678.

State general expenditure (1956-57): \$539,085,135.

New Jersey, situated in an area of wide industrial diversification between the major markets of Philadelphia and New York, is known as the crossroads of the East. Products from over 15,000 factories and shops can be delivered overnight to about 52 million people, representing 12 states and the District of Columbia. The greatest single industry is chemicals, and New Jersey is one of the foremost research centers of the world. Oil refining and shipbuilding are represented at Linden and Camden by some of the largest installations of their kind.

Of the total land area, 43% is forested and nearly 35% is devoted to agriculture. The state rates high in practically all garden vegetables. Among its fruit crops are the famous cultivated blueberries, which originated in New Jersey. The poultry industry is one of the principal phases of the state's agriculture, and dairying occupies a prominent place.

The oldest U. S. highway of any length was built in Sussex County. The New Jersey Turnpike links New York, Pennsylvania and Delaware. Its new span at Florence over the Delaware River connects with the Pennsylvania Turnpike, giving motorists an uninterrupted road from New York to Chicago. Garden State Parkway (toll) is now open from Cape May to the N. Y. Thruway (173 mi.).

Its fortunate topography and geographic location make New Jersey a popular resort state with over 100 resort areas.

NEW MEXICO

Capital: Santa Fe.

Governor: Edwin L. Mechem, Rep. (to Jan. 1959).

Organized as territory: Sept. 9, 1850.

Entered Union & (rank): Jan. 6, 1912 (47).

Present constitution adopted: 1912.

Motto: *Crescit eundo* (It grows as it goes).

State flower: Yucca (1927).

State tree: Piñon (1949).

State bird: Road runner (1949).

State fish: Cutthroat trout (1955).

State colors: Flaming red and golden orange (1915).

State song: "O, Fair New Mexico" (1916).

Nicknames: Land of Enchantment; Sunshine State.

Origin of name: From the country of Mexico.

1940 population & (rank): 531,818 (42).

1950 population & (rank): 681,187 (39).

1957 estimated population: 891,300.

Area & (rank): 121,666 sq. mi. (5).

Geographic center: In Torrance Co., 12 mi. W of S of Willard.

Number of counties: 32.

Largest cities (1950 Census): Albuquerque (96,815); Santa Fe (27,998); Roswell (25,738); Carlsbad (17,975); Clovis (17,318).

State forests: None.

State parks: 6 (16,018 ac.).

State general revenue (1957): \$186,364,000.

State general expenditure (1957): \$173,512,000.

New Mexico's chief industries are mining and the raising of cattle and crops. Irrigation is vital.

The state contains the largest Indian reservation in the U. S. with over 16,000,000 acres, inhabited by the Navajo tribe. The Apaches and Utes live in three other reservations in this state (the Jicarilla Apache, at Horse Lake; the Mescalero Apache, northeast of Alamogordo; the Navajo, in San Juan and McKinley counties; and the Southern Ute, in the northern part of San Juan County). Carlsbad Caverns, the largest in the world, attract many visitors annually. The highest golf course in the world, over 9,000 feet above sea level, is near Alamogordo.

The state's dry and healthful climate makes it a great recuperative mecca for tuberculars. Santa Fe, the oldest seat of government in the U. S., was founded by the Spaniards in 1609-10.

Los Alamos is the site of an atomic-energy laboratory. The first atomic explosion in history was at the Alamogordo air base.

NEW YORK

Capital: Albany.

Governor: W. Averell Harriman, Dem. (to Jan. 1959).

Entered Union & (rank): July 26, 1788 (11).

Present constitution adopted: 1777 (last revised 1938).

Motto: *Excelsior* (Ever Upward).

State flower: Rose (1955).

State tree: Sugar maple (1956).

State bird: Bluebird (unofficial).

State song: None.

Nickname: Empire State.

Origin of name: In honor of the English Duke of York.

1940 population & (rank): 13,479,142 (1).

1950 population & (rank): 14,830,192 (1).

1957 estimated population: 15,888,000.

Area & (rank): 49,576 sq. mi. (30).

Geographic center: In Madison Co., 6 mi. E of S of Oneida.

Number of counties: 62.

Largest cities (1950 Census): New York (7,891,957); Buffalo (580,132); Rochester (332,488); Syracuse (220,583); Yonkers (152,798).

State Forest Preserves: Adirondacks, 2,250,054 ac.; Catskills, 235,116 ac.

State parks: 82 (199,500 ac., including parkways).

State general fund income (1957): \$1,390,649,697.

State general fund outgo (1957): \$1,390,379,997.

New York, with the great metropolis of New York City, is the spectacular nerve center of the nation. It leads in population, manufacturing, foreign trade, commercial and financial transactions, book and magazine publishing, theatrical production, etc.

New York City is not only a national but an international leader. It is the busiest seaport in the world; New York International Airport is the largest in the world. First in manufacturing since 1824, the city today has a gigantic clothing and fur industry and also makes chemicals, paints, drugs, machinery, paper, wood and textile products and houses the tallest buildings in the world. Nearly all the rest of the state's manufacturing is done along the Hudson River north to Albany and through the Mohawk Valley, Central New York and Southern Tier regions to Buffalo. The vast St. Lawrence seaway and power projects are opening the state's North Country to industrial expansion. Planes, heavy and light electrical equipment, locomotives, radio and TV sets, auto bodies and parts, washing machines, typewriters, photographic and optical equipment, shirts and flour are manufactured. Dairying, truck gardening, and the raising of potatoes, onions and cabbage keep the New York farmer prosperous. Winemaking is a major industry in the state.

New York's extremely rapid commercial

growth may be partly attributed to Governor De Witt Clinton who pushed through the construction of the Erie Canal (Buffalo to Albany) which was opened in 1825. Today, the 500-mile N. Y. Thruway connects New York City with Buffalo and the Pennsylvania border.

The convention and tourist business is the state's fifth greatest source of income.

For a short time, New York City was the U. S. Capital and George Washington was inaugurated there as the first President on April 30, 1789.

Henry Hudson explored New York in 1609 in his trip up the river later named in his honor. On the basis of his explorations, the Dutch bought the island of Manhattan for \$24 from the Indians in 1626.

NORTH CAROLINA

Capital: Raleigh.

Governor: Luther H. Hodges, Dem. (to Jan. 1961).

Entered Union & (rank): Nov. 21, 1789 (12).

Seceded from Union: May 20, 1861.

Re-entered Union: July 20, 1868.

Present constitution adopted: 1876.

Motto: *Esse quam videri* (To be rather than to seem) (1893).

State flower: Dogwood (1941).

State bird: Cardinal (1943).

State song: "The Old North State" (1927)

State colors: red and blue (1945).

Nickname: Tar Heel State.

Origin of name: In honor of Charles I of England.

1940 population & (rank): 3,571,623 (11).

1950 population & (rank): 4,061,929 (10).

1957 estimated population: 4,498,000.

Area & (rank): 52,712 sq. mi. (28).

Geographic center: In Chatham Co., 10 mi. NW of Sanford.

Number of counties: 100.

Largest cities (1950 Census): Charlotte (134,042); Winston-Salem (87,811); Greensboro (74,389); Durham (71,311); Raleigh (65,679).

State forests: 1.

State parks: 11 (35,628 ac.).

State revenue (all funds) (1956-57): \$411,727,701.

State expenditure (all funds) (1956-57): \$384,080,514.

North Carolina is the nation's largest tobaccoist and textile producer. It holds first place in the Southeast in population and in the value of its industrial and agricultural production. This production is highly diversified, with furniture, chemicals and paper constituting enormous industries. Tobacco, corn, cotton, hay, peanuts and truck and vegetable crops are of major importance.

The state leads the South in social and economic reforms. Its educational pay scale is the same for white and Negro teachers.

There are 18 state and national parks and forests, including the Great Smoky Mountains National Park, the Blue Ridge Parkway and the new Cape Hatteras National Seashore. Mt. Mitchell, on the Parkway near Asheville, is the highest mountain in the Eastern U. S. (6,684 ft. above sea level).

The largest military reservation in the U. S. (Fort Bragg) and the largest Marine amphibious training base (Camp LeJeune) are in North Carolina.

The first English colony in America was established on Roanoke Island in 1585. Virginia Dare, born there in 1587, was the first child of English parentage born in America.

NORTH DAKOTA

Capital: Bismarck.

Governor: John E. Davis, Rep. (to Jan. 1959).

Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Nov. 2, 1889 (39).

Present constitution adopted: 1889.

Motto: Liberty and union, now and forever: one and inseparable.

State flower: Wild prairie rose (1907).

State tree: American elm (1947).

State bird: Western meadow lark (1947).

State song: "North Dakota Hymn" (1947).

Nickname: Sioux State; Flickertail State.

Origin of name: From the Dakotah tribe, meaning "allies."

1940 population & (rank): 641,935 (39).

1950 population & (rank): 619,636 (41).

1957 estimated population: 644,000.

Area & (rank): 70,665 sq. mi. (17).

Geographic center: In Sheridan Co., 5 mi. SW of McClusky.

Number of counties: 53.

Largest cities (1950 Census): Fargo (38,256);

Grand Forks (26,836); Minot (22,032); Bismarck (18,640); Jamestown (10,697).

State forests: None.

State parks: 5 (2,981 ac.).

State collections (1957): \$98,573,957.

State disbursements (1957): 105,010,447.

North Dakota, politically progressive, operates the only state-owned bank, flour mill and grain elevator in the nation. The state owes its main activity to agriculture with over 87 per cent of its acreage devoted to the growth of barley, wheat, rye, oats and livestock. Most of its manufacturing consists of dairy products.

The finest farming land is in the Red River Valley, celebrated in song. Cattle raising is centered in the Missouri Valley.

"Number One Northern Hard," a wheat first grown in this state, still brings premium prices for its excellence of quality.

The completion of Garrison Dam on the Missouri River will result in extensive irrigation and the production of 400,000 kw. of electricity for use in the Missouri Basin areas.

In 1951, oil was discovered near Tloga by the Amerada Petroleum Corp. Geologists believe that the state holds two-thirds of the nation's lignite.

The geographic center of the North American continent is located in Pierce County latitude 48°10'N, longitude 100°10'W.

OHIO

Capital: Columbus.

Governor: C. William O'Neill, Rep. (to Jan. 1959).

Entered Union & (rank): Mar. 1, 1803 (17).

Present constitution adopted: 1851.

Motto: *Imperium in imperio* (An empire within an empire) (unofficial).
State flower: Scarlet carnation (1904).
State bird: Cardinal (1933).
State song: None.
Nickname: Buckeye State.
Origin of name: From an Iroquoian word meaning "great river."
1940 population & (rank): 6,907,612 (4).
1950 population & (rank): 7,946,627 (5).
1957 estimated population: 9,200,000.
Area & (rank): 41,222 sq. mi. (35).
Geographic center: In Delaware Co., 25 mi. N of Columbus.
Number of counties: 88.
Largest cities (1950 Census): Cleveland (914,808); Cincinnati (503,998); Columbus (375,901); Toledo (303,616); Akron (274,605).
State forests: 20 (145,281 ac.).
State parks: 55 (22,074 ac.).
State general revenue (1956-57): \$1,250,755,883.
State general expenditure (1956-57): \$1,238,567,565.

With vast coal and oil fields on the one hand, with Great Lakes iron ore close by on the other, Ohio automatically developed into one of the nation's greatest industrial states. The vast and varied factory output of its cities runs from wire, nails, nuts, bolts, paper, radios, cash registers, golf clubs, refrigerators to motors of all kinds and sizes. Cleveland is one of the world's largest handlers of iron ore. Toledo is the nation's largest shipper of coal. Akron makes most of the automobile tires used in the U. S.

Ohio's thousands of factories almost overshadow its importance in two other basic industries—mining and agriculture. Its fertile soil produces soy beans, corn, wheat, grapes and tobacco. Dairying and greenhouse products are important. Mining is centered in coal, oil, sand, gravel and clay.

Ohio has sent to the White House eight men, six of whom were elected from that state and two of whom were born in Ohio but elected from other states.

In 1749, Céleron, a French officer, reached the Ohio River from Canada and claimed the area for the French, disregarding the grants of the British Kings.

OKLAHOMA

Capital: Oklahoma City.
Governor: Raymond D. Gary, Dem. (to Jan. 1959).
Organized as territory: May 2, 1890.
Entered Union & (rank): Nov. 16, 1907 (46).
Present constitution adopted: 1907.
Motto: *Labor omnia vincit* (Labor conquers all things).
State flower: Mistletoe (1893).
State tree: Redbud (1937).
State bird: Scissor-tailed Flycatcher (1951).
State colors: Green and white (1915).
State song: "Oklahoma" (1953).
Nickname: Sooner State.
Origin of name: From two Choctaw Indian words meaning "red people."
1940 population & (rank): 2,336,434 (22).
1950 population & (rank): 2,233,351 (25).
1957 estimated population: 2,277,000.

Area & (rank): 69,919 sq. mi. (18).
Geographic center: In Oklahoma Co., 8 mi. N of Oklahoma City.
Number of counties: 77.
Largest cities (1950 Census): Oklahoma City (243,504); Tulsa (182,740); Muskogee (37,289); Enid (36,017); Lawton (34,757).
State forests: None.
State parks: 14 (47,813.42 ac.).
State general revenue (1957): \$354,754,316.
State general expenditure (1957): \$362,470,063.

Oil has made Oklahoma a rich state and Tulsa one of the world's wealthiest cities per capita. The smelting of zinc, oil refining, meat packing and flour milling are its chief factory industries. Wheat, corn, oats, cotton, sorghums and potatoes are its agricultural crops of chief importance.

In 1834, Oklahoma was set aside as Indian Territory. It remained so until Apr. 22, 1889, when the first opening to homestead settlement occurred. On that one day, 50,000 people swarmed in, and the term "sooners" was born to apply to those who had sneaked into the state sooner than the noon deadline. A series of land openings by "runs" and lotteries extended through 1901, and sales by sealed bid of remaining lands were held in 1906 and 1910.

The state is one of the two in the nation (the other is Mississippi) which prohibits the sale of hard liquor.

OREGON

Capital: Salem.
Governor: Robert D. Holmes, Dem. (to Jan. 1959).
Organized as territory: Aug. 14, 1848.
Entered Union & (rank): Feb. 14, 1859 (33).
Present constitution adopted: 1859.
Motto: The Union (1957).
State flower: Oregon grape (1899).
State tree: Douglas fir (1939).
State bird: Western meadow lark (1927).
State song: "Oregon, My Oregon" (1927).
Nickname: Beaver State.
Origin of name: Unknown. However, it is generally accepted that the name, first used by Jonathan Carver in 1778, was taken from the writings of Maj. Robert Rogers, an English army officer.
1940 population & (rank): 1,089,684 (34).
1950 population & (rank): 1,521,341 (32).
1957 estimated population: 1,769,000.
Area & (rank): 96,981 sq. mi. (10).
Geographic center: In Crook Co., 25 mi. E of S of Prineville.
Number of counties: 36.
Largest cities (1950 Census): Portland (373,628); Salem (43,140); Eugene (35,879); Medford (17,305); Corvallis (16,207).
State forests: 720,000 ac. in 16 counties.
State parks: 165 (57,797 ac.).
State general revenue (1957): \$280,666,000.
State general expenditure (1957): \$263,868,000.

Oregon, with the greatest U. S. reserve of standing timber, has a billion-dollar forestry industry. Its salmon fishing industry, centered at Astoria at the mouth of the Columbia River, is one of the world's largest.

In agriculture, the state leads in growing peppermint, holly, lily bulbs, caneberries,

liberts, Blue Lake beans and cover seed crops, and also raises strawberries, hops, wheat and other grains, sugar beets, potatoes, green peas, fiber flax, dairy products, livestock and poultry.

Oregon's coast is lush and green with heavy rainfall and is noted for its scenic beauty. Crater Lake National Park, Mount Hood and Bonneville Dam on the Columbia are other tourist attractions.

With the low-cost electric power provided by Bonneville Dam, McNary Dam and other dams in the Pacific Northwest, Oregon has developed steadily as a manufacturing state. Leading manufactures are lumber and lumber products, metalwork, machinery, aluminum, chemicals, paper and food processing.

PENNSYLVANIA

Capital: Harrisburg.

Governor: George M. Leader, Dem. (to Jan. 1959).

Entered Union & (rank): Dec. 12, 1787 (2).

Present constitution adopted: 1874.

Motto: Virtue, liberty and independence.

State flower: Mountain laurel (1933).

State tree: Hemlock (1931).

State bird: Ruffed grouse (1931).

State colors: Blue and gold.

State song: None.

Nickname: Keystone State.

Origin of name: In honor of Adm. Sir William Penn, father of William Penn. It means "Penn's Woodland."

1940 population & (rank): 9,900,180 (2).

1950 population & (rank): 10,498,012 (3).

1957 estimated population: 11,043,000.

Area & (rank): 45,333 sq. mi. (33).

Geographic center: In Center Co., 2 1/2 mi. SW of Bellefonte.

Number of counties: 67.

Largest cities (1950 Census): Philadelphia (2,071,605); Pittsburgh (676,806); Erie (130,803); Scranton (125,536); Reading (109,320).

State forests: 20 (1,857,447 ac.).

State parks: 54 (118,000 ac.).

Total general fund receipts (1955-57 biennium): \$1,425,659,850.

Total expenditures (1955-57 biennium): \$1,389,945,077.

From the steel mills of Pittsburgh through the mid-state coal mines and oil wells to the shipyards and factories of Philadelphia, Pennsylvania bristles with heavy industry. Approximately 30% of all American iron and steel is made in Pennsylvania. Other manufactures include locomotives, boilers, engines, blast furnaces, trucks, busses, wire, textiles, knit goods and nylon and rayon products. Virtually all of the U. S. anthracite (hard coal) deposits are located in Pennsylvania.

Agricultural products include apples, peaches, potatoes, corn, hay, barley, wheat, buckwheat and tobacco.

Pennsylvania is rich in historical lore. Philadelphia was the seat of the Federal government almost continuously from 1776 until 1800, and there the Declaration of Independence was signed and the Constitution drawn up. Valley Forge, of the Revolution,

and Gettysburg, the turning-point of the Civil War, are both in Pennsylvania. The Liberty Bell stands in Independence Square in Philadelphia.

Henry Hudson sailed into Delaware Bay in 1609. In 1681, William Penn, the Quaker, founded its first colony.

RHODE ISLAND

Capital: Providence.

Governor: Dennis J. Roberts, Dem. (to Jan. 1959).

Entered Union & (rank): May 29, 1790 (13).

Present constitution adopted: 1843.

Motto: Hope.

State flower: Violet (unofficial).

State tree: Maple (unofficial).

State bird: Rhode Island Red (official).

State colors: Blue, white and gold (in state flag).

Song: "Rhode Island" (1946).

Nickname: Little Rhody.

Origin of name: From the Greek island of Rhodes.

1940 population & (rank): 731,346 (36).

1950 population & (rank): 791,896 (36).

1957 estimated population: 862,000.

Area & (rank): 1,214 sq. mi. (49).

Geographic center: In Kent Co., 2.8 mi. S. by W. of Crompton.

Number of counties: 5.

Largest cities (1950 Census): Providence (248,674); Pawtucket (81,436); Cranston (55,060); Woonsocket (50,211); Warwick (43,028).

State forests: 9 (15,600 ac.).

State parks: 12 (7,400 ac.).

State general revenue (1957): \$79,243,092.

State general expenditure (1957): \$89,688,567.

Rhode Island, with the greatest density of population barring the District of Columbia, boasts the highest proportion of industrial workers of all the states. Leading industry is textiles, largely concentrated in Pawtucket, Providence and Woonsocket.

Providence is also one of the largest U. S. jewelry centers, and is important in the production of machinery and metal products.

With more than eight-tenths of the population living in urban areas, adjacent parts of the state are interested in dairying, poultry and truck farming. Nursery and greenhouse products and stock, potatoes, corn, apples, oats and hay lead the crop list. Of the state's land area, about one-seventh is farm cropland and open pasture; two-thirds is forested.

Newport is the site of the Naval War College and was long a show place for the luxurious summer homes built by some of New York's wealthiest people. The U. S. Naval Air Station is at Quonset in the town of North Kingstown.

Roger Williams founded Providence, and subsequently Rhode Island, in 1636 after he had been banished from Massachusetts for nonconformance to religious doctrine.

SOUTH CAROLINA

Capital: Columbia.

Governor: George B. Timmerman, Jr., Dem. (to Jan. 1959).

Entered Union & (rank): May 23, 1788 (8).

Seceded from Union: Dec. 20, 1860.

Re-entered Union: July 18, 1868.

Present constitution adopted: 1895.

Mottoes: *Animus opibusque parati* (Prepared in mind and resources) and *Dum spiro spero* (While I breathe, I hope).

State flower: Carolina yellow jessamine (1924).

State tree: Palmetto tree (1939).

State bird: Carolina wren (1948).

State song: "Carolina" (1911).

Nickname: Palmetto State.

Origin of name: In honor of Charles II of England.

1940 population & (rank): 1,899,804 (26).

1950 population & (rank): 2,117,027 (27).

1957 estimated population: 2,370,000.

Area & (rank): 31,055 sq. mi. (40).

Geographic center: In Richland Co., 13 mi. SE of Columbia.

Number of counties: 46.

Largest cities (1950 Census): Columbia (86,914); Charleston (70,174); Greenville (58,161); Spartanburg (36,795); Rock Hill (24,502).

State forests: 4 (123,000 ac.).

State parks: 22 (46,000 ac.).

State total revenue (1956-57): \$185,330,765.

State general expenditure (1956-57): \$182,457,920.

Once primarily agricultural, South Carolina has built so many big textile and other mills that today the state's factories are seven times the output of its farms in cash value. Agriculture has not, however, been completely replaced and today its chief crops are cotton, tobacco, peaches, corn, hay, oats, sweet potatoes and peanuts which are enhanced by the recent development of modern soil-conservation methods. Charleston makes asbestos, wood, pulp and steel products.

Civil War hostilities were started in this state at Charleston, when, on April 12, 1861, South Carolina men bombarded and captured Fort Sumter. In Charleston harbor the first submarine was used in warfare.

Vasquez de Ayllon, who came from Santo Domingo with about 500 settlers in 1526, made the first attempt to colonize this state but the expedition was later wiped out by Indians. In succeeding years, Spanish attempts were successful.

SOUTH DAKOTA

Capital: Pierre.

Governor: Joseph J. Foss, Rep. (to Jan. 1959).

Organized as territory: Mar. 2, 1861.

Entered Union & (rank): Nov. 2, 1889 (40).

Present constitution adopted: 1889.

Motto: Under God the people rule.

State flower: American pasqueflower (1903).

State tree: Black Hills spruce (1947).

State bird: Ring-necked pheasant (1943).

State animal: Coyote (1949).

State colors: Blue and gold (in state flag).

State song: "Hail! South Dakota" (1943).

Nicknames: Sunshine State; Coyote State.

Origin of name: Same as for North Dakota.

1940 population & (rank): 642,961 (38).

1950 population & (rank): 652,740 (40).

1957 estimated population: 702,000.

Area & (rank): 77,047 sq. mi. (16).

Geographic center: In Hughes Co., 8 mi. NE of Pierre.

Number of counties: 68 (64 county governments).

Largest cities (1950 Census): Sioux Falls (52,696); Rapid City (25,310); Aberdeen (21,051); Huron (12,788); Watertown (12,699).

State forests: 4 (86,000 ac.).

State parks: 10 (80,000 ac.).*

State general revenue (1956-57): \$94,715,994.

State general expenditure (1956-57): \$100,822,386.†

* The acreage shown includes 46 recreation areas and 31 roadside parks in addition to the 10 state parks.

† Includes final liquidation of veterans' bonds for Korean War, which results in higher expenditures than revenue.

Seventy-five per cent of the population of South Dakota is actively interested in agriculture. Its leading crops are rye, barley, oats, corn, wheat. Cattle raising and dairying are its stronger industries. The richest U. S. gold mine, the Homestake, is at Lead.

The Black Hills, a great tourist attraction, are the highest mountains east of the Rockies. Mt. Rushmore, in this group, is celebrated for the likenesses of Washington, Jefferson, Lincoln and Theodore Roosevelt, which were carved in stone by the late Gutzon Borglum. The Badlands offer very scenic masses of bare rock and clay unrelieved by any vegetation. It was in this state that the Sioux Indians, angered at the influx of the white men who were searching for gold, started the hostilities which ended in Custer's Massacre, on June 25, 1876, in Montana.

TENNESSEE

Capital: Nashville.

Governor: Frank G. Clement, Dem. (to Jan. 1959).

Entered Union & (rank): June 1, 1796 (16).

Seceded from Union: June 24, 1861.

Re-entered Union: July 24, 1866.

Present constitution adopted: 1870, amended for first time 1953.

Motto: Agriculture, commerce.

State flower: Iris (1933).

State tree: Tulip poplar (1947).

State bird: Mockingbird (1933).

Songs: "My Homeland, Tennessee" (1925) and "When It's Iris Time in Tennessee" (1935).

Nickname: Volunteer State.

Origin of name: From the name of the ancient capital of the Cherokee tribe.

1940 population & (rank): 2,915,841 (15).

1950 population & (rank): 3,291,718 (16).

1957 estimated population: 3,463,000.

Area & (rank): 42,246 sq. mi. (34).

Geographic center: In Rutherford Co., 5 mi. NE of Murfreesboro.

Number of counties: 95.

Largest cities (1950 Census): Memphis (396,000); Nashville (174,307); Chattanooga (131,041); Knoxville (124,769); Jackson (30,207).

State forests: 14 (154,752 ac.).

State parks: 19 (101,325 ac.).

State general revenue (1956-57): \$391,828,000.

State general expenditure (1956-57): \$362,969,000.

Tennessee won world prominence in 1945, for the atom bomb was made possible by the Clinton Engineer Works at Oak Ridge.

The state is now predominately industrial, with production including chemicals, food, textiles, virgin aluminum, shoes, lumber products, and metal work. Mineral products include phosphates, zinc, copper, lead, sinter iron, pyrites, high-grade pottery clay, coal and marble. Tennessee's agricultural production includes livestock, cotton, corn, tobacco, hay, dairy products, poultry and eggs.

Tennessee is the home of TVA which operates 29 dams and distributes power from 3 dams on the Cumberland River maintained by the Army Corps of Engineers. Benefits of flood control, navigation and electrical power reach into 6 other states (Kentucky, Alabama, North Carolina, Georgia, Virginia, and Mississippi). The Tennessee River, already the most completely used major river in the world, is insufficient to supply energy needs, and the power system is being doubled by use of steam generating plants.

TEXAS

Capital: Austin.
Governor: Price Daniel, Dem. (to Jan. 1959).
Entered Union & (rank): Dec. 29, 1845 (28).
Succeeded from Union: Mar. 2, 1861.
Re-entered Union: Mar. 30, 1870.
Present constitution adopted: 1876.
Motto: Friendship.

State flower: Bluebonnet (1901).
State tree: Pecan (1919).
State bird: Mockingbird (1927).
State song: "Texas, Our Texas" (1930).
Nickname: Lone Star State.
Origin of name: From an Indian word meaning "friends."

1940 population & (rank): 6,414,824 (6).
1950 population & (rank): 7,711,194 (6).
1957 estimated population: 9,138,000.
Area & (rank): 267,339 sq. mi. (2).
Geographic center: In McCulloch Co., 20 mi. NE of Brady.

Number of counties: 254.
Largest cities (1950 Census): Houston (596,163); Dallas (434,462); San Antonio (408,442); Fort Worth (278,778); Austin (132,459).

State forests: 4 (6,306 ac.).
State parks: 49.
State revenue receipts (1956-57): \$964,908,706.
State governmental cost (1956-57): \$872,680,662.

Big, sprawling, vigorous Texas, comprising one-twelfth of the entire area of the United States, is the richest political subdivision in the world with the possible exception of the Russian Ukraine, and is the only state that may, by Congressional statute, divide into five parts if it so desires. There is very little possibility of this ever being done because Texas and Texans live by its bigness. Texas is a natural leader in oil, natural gas, cotton, cattle, helium, sulfur, sheep, wool, onions and turkeys.

The distance from El Paso to Beaumont is a greater distance than from New York to Chicago. Texas supports possibly the most ardent local enthusiasts in the nation, who are always quick to boast of her.

Over the Neches River, at Port Arthur, is the most elevated highway bridge over tidal waters in the world.

Cabeza de Vaca explored the state in 1528. Since 1685, it has been under the jurisdiction of 6 separate governments: those of France, Spain, Mexico, the Republic of Texas, the Confederacy, and the United States.

UTAH

Capital: Salt Lake City.
Governor: George D. Clyde, Rep. (to Jan. 1961).

Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 4, 1896 (45).
Present constitution adopted: 1896.
Motto: Industry.

State flower: Sego lily (1911).
State tree: Blue spruce (1933).
State bird: Seagull (1955).
State emblem: Beehive.
State song: "Utah, We Love Thee."
Nickname: Beehive State.

Origin of name: From the Ute tribe, meaning "people of the mountains."

1940 population & (rank): 550,310 (41).
1950 population & (rank): 688,862 (38).

1957 estimated population: 851,000.
Area & (rank): 84,916 sq. mi. (11).
Geographic center: In Sanpete Co., 3 mi. N of Mantle.

Number of counties: 29.
Largest cities (1950 Census): Salt Lake City (182,121); Ogden (57,112); Provo (28,937); Logan (16,832); Murray (9,006).

State forests: None.
State parks: 3 (276 ac.).
State general revenue (1956-57): \$136,623,122.*
State general expenditure (1956-57): \$129,054,093.*

* State began period with \$38,833,037 balance or surplus; finished with \$46,402,066.

Utah, rich in natural resources, has long been recognized for its copper, gold, silver, lead and zinc. Also, it produces all the elements necessary for the manufacture of steel: iron, lime, dolomite, fluorspar, manganese and coal for coking. Uranium mining has recently become a major industry. The state is also developing an oil industry.

Utah's crops requiring extensive irrigation include sugar beets, potatoes, hay, onions and wheat. Various garden crops, such as beans, peas and tomatoes, and fruits, such as pears, peaches, apples and apricots, make up an ever-growing industry. Eggs and commercial poultry are also among the products of Utah.

Brigham Young led the Mormons into the area in 1847. In 1896, Utah was admitted into the Union.

Great Salt Lake, lying in the north central area, has long been a world wonder. It has no known outlet, and its salt content is about six times that of the ocean. Because of its natural beauty and pioneer culture, Utah is an ideal place for tourists to visit.

VERMONT

Capital: Montpelier.
Governor: Joseph B. Johnson, Rep. (to Jan. 1959).

Entered Union & (rank): Mar. 4, 1791 (14).
Present constitution adopted: 1793.

Motto: Vermont—freedom and unity.
State flower: Red clover (1894).
State tree: Sugar maple (1949).
State bird: Hermit thrush (1941).
State song: "Hall to Vermont" (1937).
Nickname: Green Mountain State.
Origin of name: From the French, meaning "green mountain."
1940 population & (rank): 359,231 (46).
1950 population & (rank): 377,747 (45).
1957 estimated population: 376,000.
Area & (rank): 9,609 sq. mi. (43).
Geographic center: In Washington Co., 4.5 mi. SSE of Roxbury Village.
Number of counties: 14.
Largest cities (1950 Census): Burlington (33,155); Rutland (17,659); Barre (10,922); Montpelier (8,599); St. Albans (8,552).
State forests: 26 (80,697 ac.).
State parks: 25 (3,641 ac.).
State revenue (1957): \$57,565,518.
State expenditure (1957): \$64,316,680.

Vermont, the only New England state without a seacoast (and the last to be settled because of this), leads the nation in marble, granite, asbestos and maple syrup production. In ratio to population it keeps more dairy cows than any other state. Vermont's soil is devoted to dairying, truck farming and fruit growing, its rugged area precluding extensive farming. This same quality, however, along with a bracing dry climate, makes the state popular as a summer resort and as a center of winter sports. Two-thirds of the total land area of the state is classified as forest land.

From 1777 to 1791, Vermont was an independent state of indefinite status with some national perquisites and then was the first state after the original thirteen to join the Union. It was also the first state to forbid slavery and the first to adopt universal manhood suffrage (1777). Vermont has been Republican since 1854; only Georgia on the Democratic side ties that record for consistency.

VIRGINIA

Capital: Richmond.
Governor: James Lindsey Almond, Dem. (to Jan. 1962).
Entered Union & (rank): June 25, 1788 (10).
Seceded from Union: Apr. 17, 1861.
Re-entered Union: Jan. 27, 1870.
Present constitution adopted: 1902.
Motto: *Sic semper tyrannis* (Thus always to tyrants).
State flower: American dogwood (1918).
State bird: Cardinal.
State song: "Carry Me Back to Old Virginny" (1940).
Nicknames: The Old Dominion; Cavalier State.
Origin of name: In honor of Elizabeth, "Virgin Queen" of England.
1940 population & (rank): 2,677,773 (19).
1950 population & (rank): 3,318,680 (15).
1957 estimated population: 3,797,000.
Area & (rank): 40,815 sq. mi. (36).
Geographic center: In Appomattox Co., 11 mi. S of E of Amherst.

Number of counties: 98, plus 32 independent cities.
Largest cities (1950 Census): Richmond (230,310); Norfolk (213,513); Roanoke (91,921); Portsmouth (80,039); Alexandria (61,787).
State forests: 6 (45,072 ac.).
State parks: 8 (24,073 ac.).
State revenue (1957): \$559,609,640.
State expenditure (1957): \$495,187,076.

The history of America is closely tied to that of Virginia, particularly in the colonial period. Jamestown, founded in 1607, was the first permanent English settlement in North America, and slavery was introduced there in 1619. The surrenders ending both the American Revolution and the Civil War occurred in Virginia. The state is called the "Mother of Presidents" because 8 chief executives of the U. S. were born there.

Points of historic interest include Mount Vernon and other places associated with Washington; Monticello, home of Jefferson; Stratford, home of the Lees; Richmond, capital of the Confederacy and of Virginia; and Williamsburg, the restored Colonial capital.

Among Virginia's natural wonders are the famous Natural Bridge and the limestone caverns of the Shenandoah Valley. The most important natural resources are beds of bituminous coal, forest lands, oyster beds and commercial fisheries.

Manufacturing includes chemicals, textiles, lumber and wood products, foods, transportation equipment (including shipbuilding), apparel and furniture. Agricultural products include livestock, poultry, dairy goods, tobacco, apples, grains and hay crops.

WASHINGTON

Capital: Olympia.
Governor: Albert D. Rosellini, Dem. (to Jan. 1961).
Organized as territory: Mar. 2, 1853.
Entered Union & (rank): Nov. 11, 1889 (42).
Present constitution adopted: 1889.
Motto: *Al-Ki* (Indian word meaning Bye and Bye).
State flower: Rhododendron (1949).
State tree: Hemlock (1947).
State bird: Goldfinch (1951).
State colors: Green and gold (1925).
State song: "Washington's Song" (1909).
Nicknames: Evergreen State; Chinook State.
Origin of name: In honor of Geo. Washington.
1940 population & (rank): 1,736,191 (30).
1950 population & (rank): 2,378,963 (23).
1957 estimated population: 2,722,000.
Area & (rank): 68,192 sq. mi. (20).
Geographic center: In Chelan Co., 10 mi. S of W of Wenatchee.
Number of counties: 39.
Largest cities (1950 Census): Seattle (467,591); Spokane (161,721); Tacoma (143,673); Yakima (38,486); Bellingham (34,112).
State forests: 2 (290,000 ac.).
State parks: 75 (65,667 ac.).
State revenue, all funds (1955-56): \$471,933,775.
State expenditures, all funds (1955-56): \$438,711,366.

Washington is one of the leaders in lumber production. Its rugged surface is rich

in stands of Douglas fir, yellow and white pine, spruce, larch and cedar. The state's other first is apples. Food and lumber products and a wide variety of goods flow from Washington factories.

The Columbia River contains one third of the potential water power of America. Largest dam is Grand Coulee, greatest power producer in the world. Other mighty dams on the Columbia include Chief Joseph, Rock Island, Bonneville, McNary and The Dalles, which are shared with Oregon. There are 96 dams in Washington, built for various purposes including power, irrigation, flood control, water storage, etc.

The Hanford Engineer Works, north of Pasco, has been set up as the world's first full-scale plant for atom bombs.

WEST VIRGINIA

Capital: Charleston.

Governor: Cecil H. Underwood, Rep. (to Jan. 1961).

Entered Union & (rank): June 20, 1863 (35).

Present constitution adopted: 1872.

Motto: *Montani semper liberi* (Mountaineers always free).

State flower: Rhododendron (1903).

State tree: Sugar maple (1949).

State bird: Cardinal (1949).

State animal: Black bear.

State colors: Blue and gold (unofficial).

State songs: "West Virginia, My Home Sweet Home" (approved 1947 as one of songs of state); "West Virginia Hills" (by custom).

Nickname: Mountain State.

Origin of name: Same as for Virginia.

1940 population & (rank): 1,901,974 (25).

1950 population & (rank): 2,005,552 (29).

1957 estimated population: 1,976,000.

Area & (rank): 24,181 sq. mi. (41).

Geographic center: In Braxton Co., 4 mi. E of Sutton.

Number of counties: 55.

Largest cities (1950 Census): Huntington (86,353); Charleston (73,501); Wheeling (58,891); Clarksburg (32,014); Parkersburg (29,684).

State forests: 10 (96,418 ac.).

State parks: 21 (38,752 ac.).

State general revenue (1956-57): \$101,656,338.

State general expenditure (1956-57): \$98,678,887.

Mountainous West Virginia is the coal mining leader of the nation. The state also ranks high in steel, glass, aluminum and chemical manufacture, natural gas, oil, quarry products and hardwood lumber. Cattle is the main agricultural product. Leading crops include wheat, corn, oats, hay, tobacco and fruit.

West Virginia was created when its residents refused to secede from the Union and severed the state from Virginia during the Civil War era.

Like many mountain states, West Virginia has an equable climate without extremes. White Sulphur Springs, in Greenbrier County, is a famous health resort. Mountain streams give the state one of the highest U. S. water-power potentials.

WISCONSIN

Capital: Madison.

Governor: Vernon W. Thomson, Rep. (to Jan. 1959).

Organized as territory: Apr. 20, 1836.

Entered Union & (rank): May 29, 1848 (30).

Present constitution adopted: 1848.

Motto: Forward.

State flower: Violet.

State tree: Sugar maple.

State bird: Robin.

State animal: Badger; "wild life" animal: white-tailed deer.

State fish: Musky (Muskellunge).

State song: "On Wisconsin" (unofficial).

Nickname: Badger State.

Origin of name: French corruption of an Indian word meaning "gathering of waters."

1940 population & (rank): 3,137,587 (13).

1950 population & (rank): 3,434,575 (14).

1957 estimated population: 3,862,000.

Area & (rank): 56,154 sq. mi. (26).

Geographic center: In Wood Co., 9 mi. SE of Marshfield.

Number of counties: 71.

Largest cities (1950 Census): Milwaukee (637,392); Madison (96,056); Racine (71,193); Kenosha (54,368); Green Bay (52,735).

State forests: 7 (335,105 ac.).

State parks: 31 (18,325 ac.).

State total net revenue, all funds (1956-57): \$502,007,899.

State total net expenditure, all funds (1956-57): \$466,006,400.

Wisconsin leads the U. S. in milk and cheese production. In 1957, the state produced 13% of the nation's total output of milk. Other important farm products are: potatoes, cabbage, maple sugar, cranberries and cherries. The state ranks first in producing peas, corn and beets for canning.

About 40 years ago Wisconsin's forests became depleted, but in recent years phenomenal strides in reforestation have been made. The chief industrial products of the state are automobiles, machinery, furniture, paper, beer and processed foods.

Wisconsin pioneered in social legislation, providing pensions for the blind (1907), aid to dependent children (1913) and old-age assistance (1925). In 1932, it was the first state to enact an unemployment compensation law. In labor legislation, the state has also pioneered in important laws, among them the first workmen's compensation law actually to take effect. Wisconsin had the first state-wide primary-election law and the first successful income-tax law.

WYOMING

Capital: Cheyenne.

Governor: Millard L. Simpson, Rep. (to Jan. 1959).

Organized as territory: July 25, 1868.

Entered Union & (rank): July 10, 1890 (44).

Present constitution adopted: 1890.

Motto: Equal rights (1955).

State flower: Indian paintbrush (1917).

State tree: Cottonwood (1947).

State bird: Meadow lark (1927).
 State insignia: Bucking horse (unofficial).
 State song: "Wyoming" (1955).
 Special legal holiday: Arbor Day (by governor's designation).
 Nickname: Equality State.
 Origin of name: From the Indian, meaning "mountains and valleys alternating"; named after the Wyoming Valley in Pa.
 1940 population & (rank): 250,742 (47).
 1950 population & (rank): 290,529 (47).
 1957 estimated population: 316,000.
 Area & (rank): 97,914 sq. mi. (9).
 Geographic center: In Fremont Co., 58 mi. N of E of Lander.
 Number of counties: 23, plus Yellowstone National Park.
 Largest cities (1950 Census): Cheyenne (31,935); Casper (23,673); Laramie (15,581); Sheridan (11,500); Rock Springs (10,857).
 State forests: None.

State parks: 2 (1,060 ac.).
 Estimated income available (General Fund, 1957-59): \$33,391,551.
 Estimated expenditure (General Fund, 1957-59): \$31,385,317.

Wealthy in wool, cattle, oil and coal, Wyoming was first in U. S. history to insure woman's place in politics. In 1869, it gave women the vote and Mrs. Nellie Tayloe Ross, who held office in 1925-27, was the first U. S. woman governor.

Second in mean elevation to Colorado, Wyoming has many lures for the tourist trade, notably Yellowstone National Park. Cheyenne is famous for its annual "Frontier Days" celebration, which brings in visitors from everywhere. One of the world's largest subbituminous coal fields lies near Gillette. Big game hunting is good in many parts of the state.

SELF-GOVERNING U. S. TERRITORY

HAWAII

Capital: Honolulu (on Oahu).
 Governor: William F. Quinn.
 Organized as territory: 1900.
 Motto: *Ua Mau Ke Ea O Ka Aina I Ka Pono* (The life of the land is preserved by righteousness).
 Territorial flower: Hibiscus.
 Territorial song: "Hawaii Ponoi" (unofficial).
 Territorial bird: Nene (Hawaiian goose).
 Nickname: Paradise of the Pacific.
 1940 population: 423,300.
 1950 population: 499,794.
 1940-50 population change: +18.1%.
 1958 estimated civilian population: 569,504.
 Area: 6,454 sq. mi. (incl. outlying islands).
 Counties: 4.
 Largest cities (1950 Census): Honolulu (248,034); Hilo (27,198); Wahiawa (8,369); Kailua-Lanikai (7,740); Wailuku (7,424).

Hawaii, 2,100 miles west-southwest of San Francisco, is a 390-mile chain of islets and 8 main islands—Hawaii, Kahoolawe, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau. Kure (Ocean) Island, an uninhabited islet in the Leeward Islands, and Palmyra, in the

Line Islands, are administratively part of Hawaii.

Hawaii's temperature is mild and the soil is fertile for tropical fruits and vegetables. Cane sugar and pineapple are its chief products, approximately 75% of the world's canned pineapple being produced in the islands. Hawaii also grows coffee, rice, bananas, nuts and potatoes. Some livestock and poultry are raised. The tourist business is Hawaii's fourth largest source of income.

Hawaii's highest peak, Mauna Kea, rises to 13,784 feet and is, in a sense, the world's highest mountain since it springs from an ocean floor 18,000 feet below sea level.

Hawaii's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote.

Hawaii was discovered in 1778 by Captain James Cook, who named it the Sandwich Islands. It was ruled by native monarchs until 1893, thereafter as a republic until 1898, when it ceded itself to the U. S.

COMMONWEALTH OF PUERTO RICO

Capital: San Juan.
 Governor: Luis Muñoz Marín, Pop. Dem. (to Jan. 1961).
 Song: "La Borinqueña."
 1940 population: 1,869,255.
 1950 population: 2,210,703.
 1940-50 population change: +18.3%.
 1957 estimated population: 2,281,000.
 Area: 3,423 sq. mi.
 Largest cities (1950 Census): San Juan (357,205*); Ponce (99,492); Mayagüez (58,944); Caguas (33,759); Arecibo (28,659).

* Includes Río Piedras (132,438), which was annexed in 1951.

Puerto Rico is an island about 100 mi. long and 35 mi. wide at the northeastern

end of the Caribbean Sea. It is a self-governing Commonwealth freely and voluntarily associated with the U. S. Under its Constitution, a Governor and a Legislative Assembly are elected by direct vote for a 4-year period. The judiciary is vested in a Supreme Court and lower courts established by law. The people elect a Resident Commissioner to the U. S. House of Representatives, where he has a voice but no vote. The island was formerly an unincorporated territory of the U. S. after being ceded by Spain as a result of the Spanish-American War.

The Commonwealth, established in 1952, is one of the most densely populated areas of

the world, with about 674 inhabitants per square mile. However, it has one of the highest standards of living in Latin America. Featuring Puerto Rican economic development is Operation Bootstrap. This program has established more than 500 new factories

and has greatly increased agricultural production, transportation and communications facilities, electric power, housing, and other industries.

Columbus discovered the island on his second voyage to America in 1493.

NON SELF-GOVERNING U. S. TERRITORIES

AMERICAN SAMOA

Capital: Pago Pago (on Tutuila Island).

Governor: Peter Tali Coleman.

1940 population: 12,908.

1950 population: 18,937.

1956 population: 20,154.

Area: 75.3 sq. mi.

American Samoa, a group of 5 volcanic islands and 2 coral atolls located some 2,400 miles south of Hawaii in the South Pacific Ocean, is administered by the Interior Dept.

By the Treaty of Berlin signed Dec. 2, 1899, and ratified Feb. 16, 1900, the U. S. was internationally acknowledged to have rights extending over all the islands of the Samoa group east of longitude 171° west of Greenwich. On Apr. 17, 1900, the chiefs of Tutuila and Aunu'u ceded those islands to the U. S. In 1904, the King and chiefs of Manu'a ceded the islands of Ofu, Olosega and Tau (comprising the Manu'a group) to the U. S. Swains Island, some 200 miles north of Samoa, was included as part of the territory by Act of Congress Mar. 4, 1925; and on Feb. 20, 1929, Congress formally accepted sovereignty over the entire group and placed the responsibility for administration in the hands of the President. From 1900-51, by Presidential direction, the Department of the Navy governed the territory. On July 1, 1951, administration was transferred to the Department of the Interior.

The principal products are copra, mats, handicrafts and canned fish.

BAKER, HOWLAND AND JARVIS

These Pacific islands were not to play a role in the extraterritorial plans of the U. S. until May 13, 1936, when the U. S. perfected its claim. President F. D. Roosevelt, at that time, placed them under the control of and jurisdiction by the Secretary of the Interior for administration purposes.

Baker Island is a saucer-shaped atoll with an area of approximately one square mile and an elevation of 20 feet. It is about 1,650 miles from Hawaii.

Howland Island, 36 miles to the northeast, is approximately one and a half miles long and half a mile wide and rises to an elevation of 18 feet.

Jarvis Island is several hundred miles to the east and is approximately two miles long by one and an eighth miles wide.

CANAL ZONE

Headquarters: Balboa Heights, C. Z.; 21 West St., New York City; 425 Thirteenth St., N. W., Washington, D. C.

Governor-President: Major Gen. William F. Potter.

1940 population: 51,827.

1954 population: 38,953.

Area: 648.01 sq. mi.

The Canal Zone is a 50-mile strip between the Atlantic and Pacific Oceans which was granted to the U. S. in perpetuity by the Republic of Panamá by treaty in 1903 (ratified Feb. 26, 1904). It extends roughly 5 miles on either side of the center line of the Panama Canal.

The 1903 treaty provided for the payment of \$10,000,000 by the U. S. to Panamá upon ratification of the treaty and \$250,000 in gold annually, beginning 9 years after ratification. The annual payments were increased to \$430,000 after the U. S. went off the gold standard. The annuity was increased to \$1,930,000 by the 1955 treaty.

The history of the Canal goes back to 1534, when King Charles V of Spain ordered a survey made. Construction of the waterway was formally inaugurated in Jan. 1880 by the French Canal Co. under a concession granted by New Granada (Colombia) 2 years earlier. The canal rights and properties of the second French Canal Co. were bought by the U. S. for \$40,000,000, the transfer being made May 4, 1904, in Panama City. The construction was completed 10 years later.

The Canal is 40.27 miles from shore line to shore line and 50.72 miles from deep water in the Caribbean to deep water in the Pacific. The Panama Railroad, completed in 1855, is owned by the Panama Canal Co. It roughly parallels the Canal channel, running 47.64 miles from Colón to Panama City and is the oldest transcontinental railroad in the Americas.

The Panama Canal Locks, which provide a water bridge between the two oceans, are Gatún Locks on the Atlantic side and Pedro Miguel and Miraflores Locks on the Pacific side. They lift or lower ships 85 feet between sea level and Gatún Lake level in 3 steps on each side of the Isthmus. Each of the twin chambers in every flight of locks has a usable length of 1,000 feet, and width of 110 feet, and is about 70 feet deep.

The Canal Zone is, in effect, a U. S. government reservation, and in general no private enterprise is permitted except that relating directly to the operation of the waterway. The Governor, who is appointed by the U. S. President, administers the Canal Zone Government, which is charged with the civil government, including health, sanitation and protection of the Zone. The Governor is also ex officio President of the Panama Canal Company, which is a corporate agency of the U. S. charged with the operation of the Canal and related business activities.

CANTON AND ENDERBURY

Canton and Enderbury Islands, the largest of the Phoenix group, are jointly owned and supervised by the U. S. and Great Britain after an agreement signed on Apr. 6, 1939. Canton is triangular in shape and the largest of the eight islands of this group. It lies approximately 1,600 miles southwest of Hawaii in the Pacific and was discovered at the turn of the eighteenth century by U. S. whalers. It was surveyed by Commander R. W. Meade who named it after a whaler ship. It had, in 1956, a population of 341, including Europeans. Enderbury is rectangular in shape and is 2.7 miles long by one mile wide. It is unpopulated and lies about 32 miles southeast of Canton.

GUAM

Capital: Agaña.
Governor: Richard Barrett Lowe.
1940 population: 22,290.
1950 population: 59,498.
1957 estimated population: 65,000.
Area: 209 sq. mi.

Guam, the largest of the Mariana Islands, is independent of the trusteeship assigned to the U. S. in 1947. It was acquired by the U. S. from Spain in 1898 (occupied 1899) and was placed under the Navy Department.

In World War II, Guam was seized by the Japanese on Dec. 11, 1941; but on July 27, 1944, it was once more in U. S. hands.

On Aug. 1, 1950, President Truman signed a bill which granted U. S. citizenship to the people of Guam and established self-government. However, the people do not have an elected representative in Washington, D.C., and they do not vote in national elections. The civilian Governor operates under the Department of the Interior.

Guam farmers raise all crops indigenous to a subtropical climate.

Added stimulus to Guam's economy was given by the development in 1950 of a commercial port at Apra Harbor.

JOHNSTON ISLAND

This island was originally discovered by Captain Charles James Johnston of *H.M.S. Cornwallis* on Dec. 14, 1807. On July 27, 1858, it was claimed by Hawaii and became a possession of the U. S. The island is about 600 miles southwest of Hawaii and about 1½ miles long by half a mile wide.

KINGMAN REEF

This reef was discovered by Captain W. E. Kingman in Nov. 1853 and is the smallest land of U. S. sovereignty. It is 150 feet long by 120 feet wide at high tide. At low tide, two other islets of this atoll appear. It is approximately 1,000 miles south of Hawaii.

KURE (OCEAN) ISLAND. See HAWAII

MIDWAY

Midway, lying about 1,200 miles west-northwest of Hawaii, was discovered by Captain N. C. Brooks of the Hawaiian bark

Gambia on July 5, 1859, in the name of the U. S. It was formally declared a U. S. possession in 1867, and in 1903 Theodore Roosevelt made it a naval reservation.

Sand and Eastern Islands, with 850 acres and 328 acres respectively, are its largest individual islands. In 1935 Midway became a stopover for commercial transpacific flights. Commercial activities ceased in 1950.

The total group comprises an area of 28 square miles and has no native population. The Navy Dept. maintains an installation and, with the Civil Aeronautics Administration, has jurisdiction over the island.

PALMYRA. See HAWAII**VIRGIN ISLANDS OF THE U. S.**

Capital: Charlotte Amalie (on St. Thomas).
Governor: Walter A. Gordon.
1940 population: 24,889 (St. Croix, 12,902; St. Thomas, 11,265; St. John, 722).
1950 population: 26,665.
1940-50 population change: +7.1%.
1956 estimated population: 30,261.
Area: 133 sq. mi. (St. Croix, 82; St. Thomas, 32; St. John, 19).

The Virgin Islands, consisting of 9 main islands and some 75 islets, were discovered by Columbus in 1493. Since 1666, England has held 6 of the main islands; the other 3 (St. Croix, St. Thomas and St. John), as well as about 50 of the islets, were eventually acquired by Denmark, which named them the Danish West Indies. In 1917, these islands were purchased by the U. S. from Denmark for \$25 million.

Congress granted U. S. citizenship to Virgin Islanders in 1927; and, in 1931, administration was transferred from the Navy to the Department of the Interior. Universal suffrage was given in 1936 to all persons who could read and write the English language. The Governor is appointed by the President of the U. S.

About 85% of the population is Negro, and there is limited farming, fishing and cattle raising. Vegetables, citrus fruits and coconuts are raised, and the chief items of export are sugar, rum and bay rum. Tourism is the principal industry.

WAKE ISLAND

Wake Island, about halfway between Midway and Guam, is actually the three islets of Wilkes, Peale and Wake. They were discovered by the British in 1796 and annexed by the U. S. in 1898. The entire area comprises four square miles. In 1938, Pan American Airways established a seaplane base and it has been used as a commercial base since then. On Dec. 8, 1941, it was attacked by the Japanese, who finally took possession on Dec. 23. It was surrendered by the Japanese on Sept. 4, 1945. On Oct. 15, 1950, it was the scene of a conference between President Truman and General MacArthur.

The Civil Aeronautics Administration maintains a station on the island and has jurisdiction, with the Navy, over the island. There is no native population.

U. S. Trusteeships

In 1885, Germany assumed a protectorate over the Marshall Islands; and, in 1899, she purchased the Northern Mariana and Caroline Islands from Spain. These islands were occupied by the Japanese in 1914 and were mandated to Japan by the League of Nations in 1919. On Apr. 2, 1947, the U. N. Security Council approved a trusteeship agreement proposed by the U. S. under which the Northern Mariana, Caroline and Marshall Islands became a Strategic Trust Territory under the administration of the U. S. The measure was approved by the President, with the agreement of Congress, on July 18, 1947. Administration was transferred from the Navy to the Department of the Interior on July 1, 1951. However, administration of Saipan and Tinian was transferred back to the Navy on Jan. 1, 1953. On July 17 of the same year, administration of the remaining islands of the Northern Marianas, with the exception of Rota, was also transferred back to the Navy.

The entire group comprises more than 2,000 islands, but the total land area is only 687 sq. mi., many of the islands being only tiny coral reefs. The Micronesians are the main cultural group, the inhabitants of the Northern Marianas being most advanced.

MARIANA ISLANDS

The Mariana Islands, east of the Philippines and south of Japan, include the islands of Guam, Rota, Saipan, Tinian, Pagan, Guguan, Agrihan and Aguijan. Guam, the largest, is independent of the trusteeship, having been acquired by the U. S. from Spain in 1898. (For information on Guam, see preceding page.)

Chief crops are copra and fresh fruits and vegetables.

CAROLINE ISLANDS

The Caroline Islands, east of the Philippines and south of the Marianas, include the Yap, Truk and Palau groups and the islands of Ponape and Kusale, as well as many coral atolls.

The islands are composed chiefly of vol-

canic rock, and their peaks rise 2,000 to 3,000 feet above sea level. Chief exports of the islands are copra, trochus and handicrafts.

MARSHALL ISLANDS

The Marshall Islands, east of the Carolines, are divided into two chains: the western or Ralik group, including the atolls Jaluit, Kwajalein, Wotho, Bikini and Eniwetok; and the eastern or Ratak group, including the atolls Mill, Majuro, Maloelap, Wotje and Likiep.

The islands are of the coral-reef type and rise only a few feet above sea level. The chief crop is coconuts; exports include copra, tortoise shell, mother-of-pearl, etc.

Bikini and Eniwetok have been the scene of several atom-bomb tests.

Islands Under Provisional U. S. Administration

In accordance with the Japanese peace treaty signed Sept. 8, 1951, the U. S. may propose that the U. N. assign to it, as a trusteeship, the following former Japanese territory: the Ryukyu Islands south of 29° n. lat. (largest: Okinawa); the Bonin Islands (largest: Chichi Jima); the Volcano Islands

(including Iwo Jima); Rosario Island; Parece Vela; and Marcus Island. It was also agreed in the treaty that, until such trusteeship is actually granted, the U. S. will administer the islands. As of Sept. 1958, no action had been taken by the U. S. toward bringing about this trusteeship.

THE 50 LARGEST CITIES OF THE CONTINENTAL U. S.

Since we planned the INFORMATION PLEASE ALMANAC as a book of national scope and interest, we avoided emphasis on and identification with a single city or state, as has been characteristic of all almanacs heretofore. To obtain accurate and authoritative information we have gone to the city officials. We appreciate their co-operation. The tabular material listed here is the latest provided by the sources.

AKRON, OHIO

Incorporated as city: 1865.
Mayor-Manager: Leo Berg (to Dec. 1959).
1940 population & (rank): 244,791 (38).
1950 population & (rank): 274,605 (39).
1940-50 population change: +12.2%.
1950 land area: 53.7 sq. mi.
Altitude: 1,081 ft.
Location: In NE part of state, on Little Cuyahoga River.
County: Seat of Summit Co.
Churches: 316 of all denominations in county.
City-owned parks: 73 (4,400 ac.).
Telephones (1957): 132,317.
Television sets (1957): 142,000.*

Radio stations (1958): AM, 4; FM, 1.
Assessed valuation (1957): \$716,000,000.
City tax rate (1957): \$36.50, per \$1,000.
Bonded debt (1957): \$34,047,500.
Revenue (1957): \$21,946,304.
Expenditure (1957): \$21,946,304.

* In viewing area.

ATLANTA, GA.

Incorporated as city: 1847.
Mayor: William B. Hartsfield (to Jan 1962).
1940 population & (rank): 302,288 (28).
1950 population & (rank): 331,314 (33).
1958 estimated population: 507,600.

1940-50 population change: +9.6%.

1958 area: 126.0 sq. mi.

Altitude: Highest, 1,050 ft.; lowest, 940.

Location: In NW central part of state, near Chattahoochee River.

Counties: In Fulton and De Kalb Cos.; seat of Fulton Co.

Churches: For whites, more than 352; for Negroes, more than 270.

City-owned parks and parkways: 146 (2,350 ac.).

Telephones (1957): 349,989.

Families with radios (1956): 220,400.

Television sets (1956): 186,200.

Radio stations: AM, 13; FM, 5.

Television stations: 3.

Assessed valuation (1958): \$938,288,949.

City tax rate (1958): \$25 per \$1,000.

Bonded debt (1957): \$61,761,328.

Revenue (1957): \$27,000,622.*

Expenditure (1957): \$39,779,574.

* Does not include \$2,326,124 brought forward from 1956.

BALTIMORE, MD.

Incorporated as city: 1797.

Mayor: Thomas D'Alesandro, Jr. (to May 1959).

1940 population & (rank): 859,100 (7).

1950 population & (rank): 949,708 (6).

1940-50 population change: +10.5%.

1940 area: Land, 78.7 sq. mi.; inland water, 6.9.

Altitude: Highest, 490 ft.; lowest, sea level.

Location: On Patapsco River, about 12 mi. from Chesapeake Bay.

County: Independent city.

Churches: Roman Catholic, 72; Jewish, 57; Protestant and other, 482 (150 colored).

City-owned parks: 148 park areas and tracts (6,000 ac.).

Telephone subscribers (Jan. 31, 1958): 234,317.

Radio stations: AM, 8; FM, 3.

Television stations: 3.

Assessed valuation (1958): \$3,604,409,008.

City tax rate (1958): \$2.98 per \$100.

Net bonded debt (Jan. 1, 1958): \$269,843,396.

Revenue (1957 budget): \$176,343,008.

Expenditure (1957 budget): \$165,094,869.

BIRMINGHAM, ALA.

Incorporated as city: 1871.

Mayor: James W. Morgan (to Nov. 1961).

1940 population & (rank): 267,583 (35).

1950 population & (rank): 326,037 (34).

1940-50 population change: +21.8%.

1958 estimated population: 366,000.

1955 land area: 66.88 sq. mi.

Altitude: Highest, 1,052 ft.; lowest, 565.

Location: In N central part of state.

County: Seat of Jefferson Co.

Churches: Protestant, 491; Roman Catholic, 26; Jewish, 3.

City-owned parks: 66 (1,211 ac.).

Telephones (1958): 174,500.

Television sets (1955): 142,000.

Radio stations: AM, 11; FM, 3.

Television stations: 3.

Assessed valuation (1956): \$400,000,000.

City tax rate (1955): \$18 per \$1,000.

Net bonded debt (1956): \$20,989,778.

Revenue (1956): \$24,519,347.

Expenditure (1956): \$24,333,762.

BOSTON, MASS.

Incorporated as city: 1822.

Mayor: John B. Hynes (to Jan. 1960).

1940 population & (rank): 770,816 (9).

1950 population & (rank): 801,444 (10).

1940-50 population change: +4.0%.

1956 area: Land, 47.8 sq. mi.; inland water, 19.8.

Altitude: Highest, 330 ft.; lowest, sea level.

Location: On Massachusetts Bay, at mouths of Charles and Mystic Rivers.

County: Seat of Suffolk Co.

Churches: Protestant, 253; Roman Catholic, 84; Jewish, 38; others, 74.

City-owned parks & parkways: 2,710.82 ac.

Telephones: 364,500.

Radio sets (Greater Boston Area): 857,549.

Television sets (Greater Boston Area): 792,309.

Radio stations: AM, 9; FM, 8.

Television stations: 4.

Assessed valuation (1957): \$1,491,770,000.

City tax rate (1957): \$86 per \$1,000.

Net bonded debt (1957): \$70,832,869.

Revenue (1957): \$335,248,232.

Expenditure (1957): \$340,001,896.

BUFFALO, N. Y.

Incorporated as city: 1832.

Mayor: Frank A. Sedita (to Dec. 31, 1961).

1940 population & (rank): 575,901 (14).

1950 population & (rank): 580,132 (15).

1940-50 population change: +0.7%.

1940 area: Land, 42.67 sq. mi.; inland water, 10.8.

Altitude: Highest, 680 ft.; lowest, 571.

Location: At east end of Lake Erie, on Niagara River.

County: Seat of Erie Co.

Churches: Protestant, 290; Roman Catholic, 82; Jewish, 12; others, 34.

City-owned parks: 10 public parks (3,000 ac.).

Telephones (Feb. 1958): 343,710.

Radio sets: 325,000.

Television sets: 150,000.

Radio stations: AM, 7; FM, 4.

Television stations: 3.

Assessed valuation (1957-58): \$1,071,052,503.

City tax rate (1957-58): \$27.43 per \$1,000.

Net bonded debt (Jan. 1958): \$46,724,358.

Revenue (1956-57): \$66,868,570.

Expenditure (1956-57): \$66,301,405.

CHICAGO, ILL.

Incorporated as city: 1837.

Mayor: Richard J. Daley (to Apr. 1959).

1940 population & (rank): 3,396,808 (2).

1950 population & (rank): 3,620,962 (2).

1940-50 population change: +6.6%.

1957 area: Land, 221,297 sq. mi.; inland water, 5,368.

Altitude: Highest, 672 ft.; lowest, 581.

Location: On lower west shore of Lake Michigan.

County: Seat of Cook Co.

Churches: Protestant, 1,119; Roman Catholic, 300; Jewish, 54.*

City-owned parks: 171.

Telephones (Dec. 31, 1957): 1,800,103.

Radio sets (June 1, 1954): 2,315,630.

Television sets (1958): 2,713,148.

Radio stations: AM, 16; FM, 13.
 Television stations: 5.
 Assessed valuation (1957): \$9,815,988,656.
 City tax rate (1957): \$3.95 (north of 87th St.); \$3.974 (south of 87th St.). Both per \$100.
 Gross bonded debt (1958): \$201,375,450.
 Revenue (1956): \$790,738,712.
 Expenditure (1956): \$766,311,795.
 * Store front churches excluded.

CINCINNATI, OHIO

Incorporated as city: 1819.
 Mayor: Donald D. Clancy (to Nov. 1959).
 City Manager: C. A. Harrell (Apptd. 1954).
 1940 population & (rank): 455,610 (17).
 1950 population & (rank): 503,998 (18).
 1940-50 population change: +10.6%.
 1958 land area: 76.76 sq. mi.
 Altitude: Highest, 960 ft.; lowest, 441.
 Location: In SW corner of state on Ohio River.
 County: Seat of Hamilton Co.
 Churches: 505.
 City-owned parks: 82 (3,877.57 ac.).
 Telephones (1956): 434,826.
 Homes with radios (1954): 293,700.*
 Homes with television (1954): 263,400.*
 Radio stations: AM, 7; FM, 2.
 Television stations: 4.
 Assessed valuation (1957): \$1,500,000,000.
 City tax rate (1958): \$10.76 per \$1,000.
 Bonded debt (1957): \$141,376,656.
 Revenue (1957): \$113,703,544.
 Expenditure (1957): \$107,641,895.
 * Data for Hamilton County.

CLEVELAND, OHIO

Incorporated as city: 1836.
 Mayor: Anthony J. Celebrezze (to Nov. 1959).
 1940 population & (rank): 878,336 (6).
 1950 population & (rank): 914,808 (7).
 1940-50 population change: +4.2%.
 1950 area: 73.1 sq. mi.
 Altitude: Highest, 865 ft.; lowest, 573.
 Location: On Lake Erie at mouth of Cuyahoga River.
 County: Seat of Cuyahoga Co.
 Churches: Protestant, 377; Roman Catholic, 118; Jewish, 36; others, 6.
 City-owned parks: 35 (2,420 ac.).
 Telephones (Mar. 1955): 696,772.*
 Radio sets (1955): 1,102,500.†
 Television sets (1955): 1,195,000.‡
 Radio stations: AM, 8; FM, 8.
 Television stations: 3.
 Assessed valuation (1958): \$2,753,900,000.
 City tax rate (1957): \$34.70 per \$1,000.
 Bonded debt (June 1, 1958): \$222,067,000.
 Revenue (1957): \$134,743,015.
 Expenditure (1957): \$108,067,660.

* Metropolitan area. † Greater Cleveland. ‡ In viewing area.

COLUMBUS, OHIO

Incorporated as city: 1834.
 Mayor: M. E. Sensenbrenner (to Jan. 1960).
 1940 population & (rank): 306,087 (26).
 1950 population & (rank): 375,901 (28).
 1940-50 population change: +22.8%.
 1958 estimated population: 649,023.*
 Altitude: Highest, 902 ft.; lowest, 702.

Location: In central part of state, on Scioto River.
 County: Seat of Franklin Co.
 Churches: Protestant, 467; Roman Catholic, 38; Jewish, 5.
 City-owned parks: 57 (2,772.81 ac.).
 Telephones (Dec. 1957): 300,885.
 Homes with radios (1958): 196,000.
 Television sets (1958): 165,600.*
 Radio stations: AM, 5.
 Television stations: 3.
 Assessed valuation (1957): \$1,025,414,490.
 City tax rate (1957): \$22.40 per \$1,000.
 Bonded debt (Feb. 18, 1958): \$24,250,198.
 Revenue (1957): \$36,877,773.
 Expenditure (1957): \$24,674,216.

* Metropolitan area.

DALLAS, TEX.

Incorporated as city: 1856.
 Mayor: R. L. Thornton (to May 1959).
 City Manager: Elgin E. Crull (apptd. 1952).
 1940 population & (rank): 294,734 (31).
 1950 population & (rank): 434,462 (22).
 1940-50 population change: +47.4%.
 1958 estimated population: 633,340.
 1958 area: 264 sq. mi.
 Altitude: Highest, 685 ft.; lowest, 375.
 Location: In NE part of state, on Trinity River.
 County: Seat of Dallas Co.
 Churches: 725.
 City-owned parks: 116 (7,848.22 ac.).
 Telephones (Jan. 1, 1958): 367,706.
 Radio sets (1958): 700,000 (estimated).
 Television homes: 241,151.
 Radio stations: AM, 7; FM, 3.
 Television stations: 2.
 Assessed valuation (1957): \$1,275,611,660.
 Net bonded debt (Sept. 30, 1957): \$76,311,408.
 Revenue (1957-58): \$53,959,485.
 Expenditure (1957-58): \$53,959,485.

DAYTON, OHIO

Incorporated as city: 1805.
 Mayor: William R. Patterson (to Jan. 1962).
 City Manager: Herbert W. Starick (apptd. July 1953).
 1940 population & (rank): 210,718 (40).
 1950 population & (rank): 243,872 (44).
 1940-50 population change: +15.7%.
 1957 land area: 30.9 sq. mi.
 Altitude: Highest 981 ft.; lowest, 727.
 Location: In SW part of state, on Miami River.
 County: Seat of Montgomery Co.
 Churches: Protestant, 200; Roman Catholic, 29; Jewish, 3.
 City-owned parks: 56 (1,550 ac.).
 Telephones (1957): 214,151.
 Radio sets (1957): 142,260.*
 Television sets (1957): 140,000.
 Radio stations (1957): AM, 4; FM, 1.
 Television stations (1957): 2.
 Assessed valuation (1955): \$648,840,890.
 City tax rate (1955): \$10 per \$1,000.†
 Bonded debt (1955): \$29,136,500.
 Revenue (1957 General Fund): \$10,369,168.
 Expenditure (1957 General Fund): \$9,772,254.

* Dwellings only; Metropolitan area. † Dayton also has a ½ of 1% City Income Tax on salaries and net profits of business.

DENVER, COLO.

Incorporated as city: 1861.

Mayor: Will F. Nicholson (to July 1959).

1940 population & (rank): 322,412 (24).

1950 population & (rank): 415,786 (24).

1940-50 population change: +29.0%.

1957 area: Land, 73.6 sq. mi.; inland water, 0.8.

Altitude: Highest, 5,470 ft.; lowest, 5,130.

Location: In NE central part of state, on South Platte River.

County: Coextensive with Denver Co.

Churches: Protestant, 322; Roman Catholic, 50; Jewish, 12.

City-owned parks: 100 (1,800 developed acres).

City-owned mountain parks: 28 (13,447.6 ac.).

Families with telephones (1957): 196,000.

Radio stations: AM, 11; FM, 2.

Television stations: 5.

Assessed valuation (1956): \$1,035,295,740.

City tax rate (1956): \$20.40 per \$1,000.

Bonded debt (1956): \$22,058,000.

Revenue (1956): \$62,684,500.

Expenditure (1956): \$67,500,476.

DETROIT, MICH.

Incorporated as city: 1824.

Mayor: Louis C. Miriani (to Jan. 1962).

1940 population & (rank): 1,623,452 (4).

1950 population & (rank): 1,849,568 (5).

1940-50 population change: +13.9%.

1957 area: Land, 139.6 sq. mi.; inland water, 4.1.

Altitude: Highest, 685 ft.; lowest, 574.

Location: In Southeast part of state, on Detroit River.

County: Seat of Wayne Co.

Churches: * Protestant, 1,508; Catholic, 317; Jewish, 48.

City-owned parks: 359 sites (5,869 ac.).

Telephones: 1,449,000.*

Radio sets: 2,043,400.*

Television sets: 1,868,500.*

Radio stations: AM, 6; FM, 9.

Television stations: 4.

Assessed valuation (1957): \$5,096,020,510.

City tax rate (1957-58): \$24.54 per \$1,000.†

Net bonded debt (June 30, 1957): \$322,449,338.

Revenue (1956-57): \$445,761,725.

Expenditure (1956-57): \$446,668,862.

* Metropolitan area. † Excludes school system.

FORT WORTH, TEX.

Incorporated as city: 1873.

Mayor: Thomas A. McCann (to April 1959).

City Manager: J. F. Davis (apptd. 1956)

1940 population & (rank): 177,662 (46).

1950 population & (rank): 278,778 (38).

1940-50 population change: +56.9%.

1957 estimated population: 388,138.

1957 Metropolitan population: 565,648.

1950 land area: 143.075 sq. mi.

Altitude: Highest, 780 ft.; lowest, 520.

Location: In N Central part of state, on Trinity River.

County: Seat of Tarrant Co.

Churches: Protestant, 482; Roman Catholic, 16; Jewish, 2.

City-owned parks: 64 (4,924 ac.).

Telephones (1956): 190,150.

Radio sets (1956): 150,000.

Television sets (1956): 120,000.

Radio stations (1956): AM, 6; FM, 1.

Television stations (1956): 2.

Assessed valuation (1957): \$676,674,230.

City tax rate (1957): \$1.78 per \$100.

Bonded debt (1957): \$78,096,000.

Revenue (1957): \$15,764,782.

Expenditure (1957): \$15,915,335.

HOUSTON, TEX.

Incorporated as city: 1837.

Mayor: Lewis Cutrer (to Jan. 1960).

1940 population & (rank): 384,514 (21).

1950 population & (rank): 596,163 (14).

1940-50 population change: +55.0%.

1958 estimated population: 910,000.

1958 land area: 352 sq. mi.

Altitude: Highest, 54 ft.; lowest, sea level.

Location: In SE part of state, near Gulf of Mexico.

County: Seat of Harris Co.

Churches: Approximately 1,200.*

City-owned parks: 130 (4,000 ac.).

Telephones (1958): 462,000.*

Radio sets (1958): 468,000.*

Television sets (1958): 280,500.*

Radio stations (1958): AM, 8; FM, 3.

Television stations (1958): 2.

Assessed valuation (1957): \$1,974,648,680.

City tax rate (1958): \$2 per \$100.

Bonded debt (Feb. 1958): \$182,396,000.

Revenue (1957 General Fund, est.): \$38,760,518.

Expenditure (1957 General Fund, est.): \$34,005,-542.

* Metropolitan area (Harris County).

INDIANAPOLIS, IND.

Incorporated as city: 1874.

Mayor: Phillip L. Bayt (to Dec. 1959).

1940 population & (rank): 386,972 (20).

1950 population & (rank): 427,173 (23).

1940-50 population change: +10.4%.

1957 estimated population: 461,654.

1958 estimated Metropolitan area population: 655,000.

1957 area: Land, 62.5 sq. mi.; inland water, 0.2.

Altitude: Highest, 816 ft.; lowest, 667.

Location: In central part of state, on West Fork of White River.

County: Seat of Marion County.

Churches: 515.

City-owned parks: 32 (3,519 ac.).

Telephones (April 1957): 311,793.

Radio sets: 180,516 (radio families).

Television sets: 165,800.

Radio stations: AM, 6; FM, 2.

Television stations: 3.

Assessed valuation (1957): \$741,672,550.

City tax rate (1957): \$6.6674 per \$100.

Gross debt (Dec. 31, 1956): \$48,643,050.

Revenue (1956): \$47,557,383.

Expenditure (1956): \$47,049,566.

JACKSONVILLE, FLA.

Incorporated as city: 1832.

Mayor: Haydon Burns (to June 1959).

1940 population & (rank): 173,065 (47).

1950 population & (rank): 204,517 (49).

1940-50 population change: +18.2%.

1950 land area: 30.2 sq. mi.

Altitude: Highest, 25 ft.; lowest, 10 ft.

Location: In NE part of state, on St. Johns River near Atlantic Ocean.

County: Seat of Duval Co.
Churches: 300.
City-owned parks: 1,200 ac.
Telephones (1955): 94,000.
Radio stations (1955): AM, 7; FM, 2.
Television stations (1955): 2.
Assessed valuation (1958): \$344,681,220.
City tax rate (1958): \$16.30 per \$1,000.
Bonded debt (1958): \$2,253,011.
Revenue (1957): \$19,195,787.
Expenditure (1957): \$18,269,043.

JERSEY CITY, N. J.

Incorporated as city: 1855.
Mayor: Charles S. Witkowski (to May 1961).
1940 population & (rank): 301,173 (30).
1950 population & (rank): 299,017 (37).
1940-50 population change: -0.7%.
1940 area: Land, 14.3 sq. mi.; inland water, 7.2.
Altitude: Highest, 180 ft.; lowest, sea level.
Location: In NE part of state, on Hudson River and Upper New York Bay.
County: Seat of Hudson Co.
Churches: Protestant, 96; Roman Catholic, 39; Jewish, 17; Others, 45.
Telephones (1958): 86,967.
Assessed valuation (1958): \$488,443,598.
City tax rate (1958): \$86.55 per \$1,000.
Bonded debt (Dec. 31, 1957): \$31,567,000.*
Revenue (1957): \$54,221,928.
Expenditure (1957): \$55,679,971.

* Includes bonds and notes authorized and not issued of \$508,000.

KANSAS CITY, MO.

Incorporated as city: 1850.
Mayor: H. Roe Bartle (to Apr. 1959).
City Manager: L. P. Cookingham (apptd. June 1940).
1940 population & (rank): 399,178 (19).
1950 population & (rank): 456,622 (20).
1940-50 population change: +14.4%.
1958 land area: 111.71 sq. mi.
Altitude: Highest, 1,014 ft.; lowest, 722 ft.
Location: In western part of state, at con-junction of Missouri and Kansas Rivers.
County: Located in Jackson & Clay Counties.
Churches: Protestant, 325; Roman Catholic, 38; Jewish, 7.
City-owned parks: 52 (2,927 ac.).
Telephones (1956): 417,886.
Television sets (1956): 274,998.
Radio stations (1956): AM, 9; FM, 1.
Television stations (1956): 3.
Assessed valuation (1957): \$891,000,000.
City tax rate (1956-57): \$15 per \$1,000.
Bonded debt (Apr. 30, 1957): \$58,833,000.
Revenue (1957): \$29,382,459.
Expenditure (1957): \$29,388,675.

LONG BEACH, CALIF.

Founded: 1880.
Mayor: Ray C. Kealer (to July 1960).
City Manager: Samuel E. Vickers (apptd. 1949).
1940 population & (rank): 164,271 (53).
1950 population & (rank): 250,767 (41).
1940-50 population change: +52.7%.
1958 estimated population: 321,930.
1958 land area: 45.14 sq. mi.
Altitude: Highest, 47 ft.; lowest, sea level.
Location: On San Pedro Bay, south of Los Angeles.

County: In Los Angeles Co.
Churches: 180.
City-owned parks: 36 (1,627.94 ac.).
Telephones (1957): 172,760.
Radio stations (1957): AM, 2; FM, 3.
Television stations: None.
Assessed valuation (1957-58): \$568,219,220.
City tax rate (1956-57): \$1.365 per \$100.
Bonded debt (June 30, 1957): \$26,456,481.
Revenue (1956-57): \$56,155,605.
Expenditure (1956-57): \$44,706,688.

LOS ANGELES, CALIF.

Incorporated as city: 1850.
Mayor: Norris Poulson (to June 1961).
1940 population & (rank): 1,504,277 (5).
1950 population & (rank): 1,970,358 (4).
1940-50 population change: +31.0%.
1956 population (Special U. S. Census): 2,243,-901.
1957 area: 454.806 sq. mi.
Altitude: Highest, 5,081 ft.; lowest, sea level.
Location: In SW part of state, on Pacific Ocean.
County: Seat of Los Angeles Co.
Churches: 602 Catholic, Protestant and Jewish, plus unknown number of others.†
City-owned parks: 111 (9,674 ac.).
Telephones (1958): 1,378,000.
Radio sets (1958): 3,590,651.
Television sets (1958): 849,040.
Radio stations (1958): AM, 25; FM, 17.*
Television stations (1958): 7.
Assessed valuation (1957-58): \$3,908,014,670.
City tax rate (1957-58): \$1.8783 per \$100.
Gross debt (June 30, 1958): General obligation bonds, \$208,625,000; revenue bonds, \$354,-010,000.
Revenue (cash receipts, 1956-57): \$438,435,170 (includes bonds sold).
Expenditure (1956-57): \$426,152,469 (includes capital expenditures).
* Metropolitan area. † Includes Santa Monica and San Gabriel Valley.

LOUISVILLE, KY.

Incorporated as city: 1828.
Mayor: Bruce Hoblitzell (to Dec. 1961).
1950 population & (rank): 369,129 (30).
1940-50 population change: +15.7%.
1957 land area: 56.84 sq. mi.
Altitude: Highest, 761 ft.; lowest, 382 ft.
Location: In north central part of state, on Ohio River.
County: Seat of Jefferson Co.
Churches*: Protestant, 474; Roman Catholic, 62; Jewish, 6.
City-owned parks: 7 (2,048 ac.).
Telephones (1955)†: 158,477.
Radio sets (1955): 126,660.
Television sets (1955)†: 157,920.
Radio stations (1955): AM, 7; FM, 0.
Television stations (1955): 2.
Assessed valuation (Jan. 1, 1956): \$700,451,732.
City tax rate (1957): \$1.50 per \$100 (city purposes only; exclusive of schools).
Net bonded debt (Dec. 31, 1957): \$55,351,589.
Revenue (1957): \$17,402,780 (general corporate purposes only).
Expenditure (1957): \$17,338,624 (general corporate purposes only).
* Jefferson County. † Metropolitan area.

MEMPHIS, TENN.

Incorporated as city: 1826.

Mayor: Edmund Orgill (to Jan. 1960).

1940 population & (rank): 292,942 (32).

1950 population & (rank): 396,000 (26).

1940-50 population change: +35.2%.

1958 land area: 140.25 sq. mi.

Altitude: Highest, 320 ft.; lowest, 195.

Location: In SW corner of state, on Mississippi River.

County: Seat of Shelby Co.

Churches: Roman Catholic, 23; Jewish 7; Protestant & other, 546.

City-owned parks: 79 (2,139 ac.); playgrounds, 45.

Telephones (May 1, 1958): 213,753.

Radio sets (Apr. 1, 1958): 158,600.

Television sets (Mar. 1, 1958): 140,100.

Radio stations: AM, 9; FM, 1.

Television stations: 4.

Assessed valuation (1958): \$984,135,570.

City tax rate (1953): \$1.80 per \$100.

Bonded debt (Dec. 31, 1957): \$55,551,306.

Revenue (1957): \$22,618,791.

Expenditure (1957): \$22,652,460.

MIAMI, FLA.

Incorporated as city: 1896.

Mayor: Robert King High (to Nov. 1959).

City manager: Gen. E. A. Evans (apptd. Sept. 1, 1952).

1940 population & (rank): 172,172 (48).

1950 population & (rank): 249,276 (42).

1940-50 population change: +44.8%.

1958 estimated population: 335,000.

1958 area: Land, 34.19 sq. mi.; inland water, 18.45.

Altitude: Average, 12 ft.

Location: In SE part of state, on Biscayne Bay.

County: Seat of Dade Co.

Churches: Miami proper, 193; Metropolitan Miami (Dade County), 126.

City-owned parks: 52.

Telephones (1958): 430,000.*

Radio sets (1958): 228,694.

Television sets (1958): 222,130.

Radio stations: AM, 12; FM, 6 (3 AM-FM).

Television stations: 3 commercial, 1 educational.

Assessed valuation (1957): \$869,651,020.†

City tax rate (1957): \$16.86 per \$1,000.

Net bonded debt (June 30, 1957): \$31,867,709.

Revenue (1956-57): \$25,202,275.

Expenditure (1956-57): \$24,968,652.

* Metropolitan Miami. † Does not include railway properties valued at \$2,543,300 and classed as real estate.

MILWAUKEE, WIS.

Incorporated as city: 1846.

Mayor: Frank P. Zeidler (to Apr. 1960).

1940 population & (rank): 587,472 (13).

1950 population & (rank): 637,392 (13).

1940-50 population change: +8.5%.

1958 land area: 80.56 sq. mi.

Altitude: 581.22 ft.

Location: In SE part of state, on Lake Michigan.

County: Seat of Milwaukee Co.

Churches: 571 in county.

County-owned parks: 96 (8,783.11 ac.).

Telephones (1957): 453,767.

Radio sets (1955): 286,360.*

Television sets (1958): 313,892.

Radio stations: AM, 7; FM, 1.

Television stations: 5.

Assessed valuation (1958): \$1,724,189,310.

City tax rate (1958): \$39.33 per \$1,000.

Gross debt (Dec. 31, 1956): \$60,418,206.

Revenue (1956): \$115,272,195.

Expenditure (1958 budget): \$127,428,605.

* Milwaukee Metropolitan Area.

MINNEAPOLIS, MINN.

Incorporated as city: 1867.

Mayor: P. Kenneth Peterson (to July 1959).

1940 population & (rank): 492,370 (16).

1950 population & (rank): 521,718 (17).

1940-50 population change: +6.0%.

1954 area: Land, 58.79 sq. mi.; inland water, 5.0.

Altitude: Highest, 945 ft.; lowest, 695.

Location: In SE central part of state, on Mississippi River.

County: Seat of Hennepin Co.

Churches: 472.

City-owned parks: 152.

Telephones (1958): 307,555.

Radio sets (1952): 410,000.

Television sets (1955): 180,000.

Radio stations: AM, 10; FM, 3.

Television stations: 5.

Assessed valuation (1958): \$382,256,907.

City tax rate (1958): \$1.2598 per \$100.

Net debt (1957): \$41,890,521.

Revenue (1956): \$61,533,956.

Expenditure (1956): \$61,533,956.

NEW ORLEANS, LA.

Incorporated as city: 1805.

Mayor: de Lesseps S. Morrison (to May 1962).

1940 population & (rank): 494,537 (15).

1950 population & (rank): 570,445 (16).

1940-50 population change: +15.3%.

1958 estimated population: 649,300.

1954 area: Land, 199.4 sq. mi.; inland water, 164.1.

Altitude: Highest, 15 ft.; lowest, 4 below sea level.

Location: In SE part of state, between Mississippi River and Lake Pontchartrain.

Parish: Seat of Orleans Parish.

Churches: 625.

City-owned parks: 69 (1,700 ac.).

Telephones (1956): 276,671.

Radio sets (1956): 235,000.

Television sets (1956): 220,000.

Radio stations: AM, 11; FM, 4.

Television stations: 4.

Assessed valuation (1958): \$900,000,000.

City tax rate (1958): \$2.9775 per \$100.

Bonded debt (Jan. 1, 1958): \$83,465,000.

Revenue (1958 operating budget): \$29,078,750.

Expenditure (1958 operating budget): \$29,078,750.

NEW YORK, N. Y.

Chartered as "Greater New York": 1898.

Mayor: Robert F. Wagner (to Dec. 1961).

Borough Presidents: Bronx, James J. Lyons;

Brooklyn, John Cashmore; Manhattan,

Hulan E. Jack; Queens, Frank J. Crisona;

Richmond, Albert V. Maniscalco.

1940 population & (rank): 7,454,995 (1).

1950 population & (rank): 7,891,957 (1).

1940-50 population change: +5.9%.

1955 area: 319.1 sq. mi.

Altitude: Highest, 430 ft.; lowest, sea level.

Countries: Consists of 5 counties: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island).

Location: SE part of state, at mouth of Hudson River.

Churches: Protestant, 1,418; Jewish, 1,330; Roman Catholic, 525.

City-owned parks: 1,268 (34,250 ac.).

Telephones: 4,219,183.

Families with radios: 2,273,360.

Television sets: 4,290,000.

Radio stations: AM, 17; FM, 14.

Television stations: 6.

Assessed valuation (1957-58): \$21,943,000,000.

City tax rate (1958-59): \$4.21 per \$100.

Bonded debt (July 1, 1957): \$2,875,000,000.

Revenue (1957-58): \$1,933,740,951.

Expenditure (1957-58): \$1,933,740,951.

NEWARK, N. J.

Incorporated as city: 1836.

Mayor: Leo P. Carlin (to July 1962).

1940 population & (rank): 429,760 (18).

1950 population & (rank): 438,776 (21).

1940-50 population change: +2.1%.

1955 area: Land, 23.57 sq. mi.; inland water, 3.2.

Altitude: Highest, 273.4 ft.; lowest, sea level.

Location: In NE part of state, on Passaic River and Newark Bay.

County: Seat of Essex Co.

Churches: Protestant, 159; Roman Catholic, 41; Jewish, 32; others, 57.

City-owned parks: 38 (34.24 ac.).

County-governed parks in city: 7 (755.72 ac.).

Telephones (1955): 270,000.

Radio sets: Not available.

Radio stations: AM, 4; FM, 3.

Television stations: 1.

Assessed valuation (1958): \$724,258,394.

City tax rate (1958): \$9.61 per \$100.

Net bonded debt (1957): \$33,195,923.

Revenue (1957): \$79,266,354.

Expenditure (1957): \$73,863,610.

NORFOLK, VA.

Incorporated as city: 1845.

Mayor: W. F. Duckworth (to Aug. 31, 1962).

City Manager: Thomas F. Maxwell (apptd. Feb. 1956).

1940 population & (rank): 144,332 (60).

1950 population & (rank): 213,513 (48).

1940-50 population change: +47.9%.

1958 estimated population: 276,075.

1955 land area: 48.35 sq. mi.

Location: In SE part of state, on Elizabeth River.

County: Independent city.

Churches: 360.

Telephones (1957): 116,343.

Radio stations (1957): AM, 6; FM, 3.

Television stations (1958): 2.

Assessed valuation (1958): \$416,974,265.

City tax rate (1958): Real and personal, \$3 per \$100; machinery, \$1 per \$100.

Bonded debt (1958): \$49,794,973.

Revenue (1958 anticipated): \$32,415,310.*

Expenditure (1958 budget): \$33,322,671.

* Does not include cash surplus.

OAKLAND, CALIF.

Incorporated as city: 1854.

Mayor: Clifford E. Rishell (to June 1961).

City Manager: Wayne E. Thompson (appt. Aug. 1954).

1940 population & (rank): 302,163 (29).

1950 population & (rank): 384,575 (27).

1940-50 population change: +27.3%.

1958 estimated population: 408,000.

1958 land area: 53.1 sq. mi.

Altitude: Highest, 1,700 ft.; lowest, sea level.

Location: In west central part of state, on east side of San Francisco Bay.

County: Seat of Alameda Co.

Churches: Protestant, 149; Roman Catholic, 21; Jewish, 3; others, 46.

City-owned parks: 943.6 ac.

Telephones (1958): 353,053.*

Radio sets (est. 1957): 365,000.

Television sets (est. 1958): 270,000.†

Radio stations (1957): AM, 3.

Television stations (1958): 6 (Bay area).

Assessed valuation (1957-58): \$580,879,730.

City tax rate (1957-58): \$2.35 per \$100.

Bonded debt (June 30, 1957): \$20,154,000.

Revenue (1957-58): \$35,898,443.

Expenditure (1957-58): \$37,041,834.

* Oakland directory area. † Oakland metropolitan area.

OKLAHOMA CITY, OKLA.

Incorporated as city: 1890.

Mayor: Allen Street (to Apr. 1959).

City Manager: Sheldon L. Stirling.

1940 population & (rank): 204,424 (42).

1950 population & (rank): 243,504 (45).

1940-50 population change: +19.1%.

1958 land area: 78.81 sq. mi.

Altitude: Highest, 1,276 ft.; lowest, 1,070.

Location: In central part of state, on North Canadian River.

County: Seat of Oklahoma Co.

Churches: Protestant & others, 340; Catholic, 13; Jewish, 2.

City-owned parks: 82 (9,924 ac.).

Telephones (1957): 179,698.

Television sets: Not available.

Radio stations: AM, 8; FM, 1.

Television stations: 4 (including 1 educational).

Assessed valuation (1957): \$357,341,805.*

City tax rate (1957): \$22.97 per \$1,000.

Bonded debt (1950): \$18,918,000.

Revenue (1950): \$8,784,230.64.

Expenditure (1950): \$7,935,758.79.

* Metropolitan Oklahoma City (Oklahoma County)

OMAHA, NEBR.

Incorporated as city: 1857.

Mayor: John Rosenblatt (to May 1961).

1940 population & (rank): 223,844 (39).

1950 population & (rank): 251,117 (40).

1940-50 population change: +12.2%.

1950 land area: 48.90 sq. mi.

Altitude: Highest, 1,270 ft.

Location: In eastern part of state, on Missouri River.

County: Seat of Douglas Co.

Churches: Protestant, 200; Roman Catholic, 37; Jewish, 3.

City-owned parks: 3,100 ac.

Telephones (1957): 159,135.

Radio sets: 86,800.

Television sets: 80,000.

Radio stations (1957): AM, 6; FM, 0.
 Television stations (1957): 3.
 Assessed valuation (1958): \$464,056,915.
 City tax rate (1957): 17.90 per \$1,000.
 Bonded debt (June 1, 1958): \$11,830,000.
 Revenue (1957): \$17,068,844.*
 Expenditure (1957): \$17,274,234.
 * Telephone of revenue on hand on Dec. 31, 1957: \$3,752,272.

PHILADELPHIA, PA.

First charter as city: 1701.
 Mayor: Richardson Dilworth (to Jan. 1960).
 1940 population & (rank): 1,931,334 (3).
 1950 population & (rank): 2,071,605 (3).
 1940-50 population change: +7.3%.
 1958 area: Land, 129.71 sq. mi.; inland water, 7.8.
 Altitude: Highest, 440 ft.; lowest, sea level.
 Location: In SE part of state, at junction of Schuylkill and Delaware Rivers.
 County: Seat of Philadelphia Co.
 Churches: Roman Catholic, 148; Jewish, 136; Protestant and other, 923.
 City-owned parks: 35 (7,645.38 ac.).
 Telephones (1958): 978,747.
 Television sets (1953): 632,153.
 Radio stations: AM, 10; FM, 7.
 Television stations: 3.
 Assessed valuation (1958): \$3,864,877,680.
 City tax rate (1958): \$3.46 per \$100.
 Net bonded debt (Jan. 1, 1958): \$368,786,438 (tax supported).
 Revenue (1957): \$233,287,337.
 Expenditure (1957): \$234,618,247.

PITTSBURGH, PA.

Incorporated as city: 1816.
 Mayor: David L. Lawrence (to Jan. 1961).
 1940 population & (rank): 671,659 (10).
 1950 population & (rank): 676,806 (12).
 1940-50 population change: +0.8%.
 1951 area: Land, 55.23 sq. mi.; inland water, 3.0.
 Altitude: Highest, 1,240 ft.; lowest, 715.
 Location: In SW part of state, at junction of Allegheny and Monongahela Rivers to form Ohio River.
 County: Seat of Allegheny Co.
 Churches: Protestant, 1,008; Roman Catholic, 82; Jewish, 11.
 City-owned parks: 25; 11 parklets (2,008 ac.).
 Telephones (1957): 511,351.
 Radio sets (1958): 454,900.
 Television sets (1958): 429,000.*
 Radio stations (1958): AM, 9; FM, 4.
 Television stations (1958): 4.
 Assessed valuation (1958): Land, \$412,403,924; buildings, \$733,310,951.
 City tax rate (1958): Land, \$33 per \$1,000; buildings, \$16.50 per \$1,000.
 Bonded debt (1957): \$46,822,822.
 Revenue (1957): \$53,521,724.
 Expenditure (1957): \$53,138,663.
 * Allegheny County.

PORTLAND, OREG.

Incorporated as city: 1851.
 Mayor: Terry D. Schrunk (to Jan. 1961).
 1940 population & (rank): 305,394 (27).
 1950 population & (rank): 373,628 (29).
 Population change since 1950: +10.3%.
 1957 population: 412,100.
 1957 land area: 70.8 sq. mi.

Altitude: Highest, 1,073 ft.; lowest, sea level.
 Location: In NW part of state, on Willamette River.
 County: Seat of Multnomah Co.
 Churches: Protestant, 475; Roman Catholic, 35; Jewish, 10; Buddhist, 2.
 City-owned parks: 111 (5,550 ac.).
 Telephones (1957): 247,987.
 Radio stations: AM, 8; FM, 5.
 Television stations: 3.
 Assessed valuation (1956-57): \$681,809,120.
 City tax rate (1956-57): \$22.10 per \$1,000.
 Bonded debt (June 30, 1957): \$32,299,507.
 Revenue (1956-57): \$30,562,933.
 Expenditure (1956-57): \$29,772,148.

PROVIDENCE, R. I.

Incorporated as city: 1832.
 Mayor: Walter H. Reynolds (to Jan. 1959).
 1940 population & (rank): 253,504 (37).
 1950 population & (rank): 248,674 (43).
 1940-50 population change: -1.9%.
 1940 land area: 17.9 sq. mi.
 Altitude: Highest, 253 ft.; lowest, sea level.
 Location: In northern part of state, at head of Providence River (north arm of Narragansett Bay).
 County: Seat of Providence Co.
 Churches: Protestant, 107; Roman Catholic, 31.
 City-owned parks: 33 (815 ac.).
 Radio stations: AM, 6; FM, 3.
 Television stations: 2.
 City tax rate (1957): \$35.50 per \$1,000.
 Net bonded debt (Sept. 30, 1957): \$38,629,256.
 Revenue (1957-58 est. budget): \$36,213,526.
 Expenditure (1957-58 est. budget): \$36,161,545.

RICHMOND, VA.

Incorporated as city: 1782.
 Mayor: A. Scott Anderson (to June 30, 1960).
 City Manager: Horace H. Edwards (Apptd. 1954).
 1940 population & (rank): 193,042 (45).
 1950 population & (rank): 230,310 (46).
 1940-50 population change: +19.3%.
 1951 area: 39.89 sq. mi.
 Altitude: Highest, 312 ft.; lowest, 0.
 Location: In east central part of state, on James River.
 County: Administratively independent.
 Churches: 315.
 City-owned parks*: 75.
 Radio stations: AM, 6; FM, 4.
 Television stations: 2.
 Assessed valuation (1957): \$859,525,943.
 City tax rate (1956): Real, \$1.88 per \$100; personal, \$2.20 per \$100; machinery, \$1 per \$100.
 Net bonded debt (June 30, 1957): \$41,076,283.
 Revenue (1956-57): \$33,882,565.
 Expenditure (1956-57): \$32,057,697.

* Including 34 playgrounds and 23 athletic fields.

ROCHESTER, N. Y.

Incorporated as city: 1834.
 Mayor: Peter Barry (to Dec. 1959).
 City Manager: Robert P. Aex (apptd. 1954).
 1940 population & (rank): 324,975 (23).
 1950 population & (rank): 332,488 (32).
 1940-50 population change: +2.3%.
 1953 area: Land, 35.3 sq. mi.; inland water, 0.5.
 Altitude: Highest, 655 ft.; lowest, 246 ft.

Location: In west part of state, on Genesee River.
 County: Seat of Monroe Co.
 Churches: Protestant, 128; Roman Catholic, 38; Jewish, 19; others, 22.
 City-owned parks: 23 (2,000 ac.).
 Telephones (1956): 196,678.
 Radio sets (1953): 335,000.
 Television sets (1953): 210,000.
 Radio stations: AM, 6; FM, 2.
 Television stations: 2.
 Assessed valuation (1957): \$659,922,168.*
 City tax rate (1957-58): \$36.52 per \$1,000.
 Bonded debt (June 30, 1957): \$18,959,000.
 Revenue (1957): \$47,520,638.
 Expenditure (1956): \$46,640,715.

* Covering interim period 6 mos. ended 6-30-57.

ST. LOUIS, MO.

Incorporated as city: 1822.
 Mayor: Raymond R. Tucker (to Apr. 1961).
 1940 population & (rank): 816,048 (8).
 1950 population & (rank): 856,796 (8).
 1940-50 population change: +5.0%.
 1953 area: Land, 61.0 sq. mi.; inland water, 4.0.
 Altitude: Highest, 605 ft.; lowest, 410 ft.
 Location: On Mississippi River, 20 miles south of its conjunction with the Missouri River.
 County: Independent city, not in county.
 Churches: 1,074.
 City-owned parks: 71 (3,198.60 ac.).
 Telephones (1955): 619,000.
 Radio sets (1958): 610,000 (est.).
 Television sets (1958): 640,000 (est.).
 Radio stations (1958): AM, 12; FM, 1.
 Television stations (1953): 5.
 Assessed valuation (1957): \$1,486,754,932.
 City tax rate (1957): \$3.36 per \$100.
 Bonded debt (1957): \$139,792,000.
 Revenue (1957): \$57,710,861.54.
 Expenditure (1957): \$56,687,040.17.

ST. PAUL, MINN.

Chartered as city: 1853.
 Mayor: Joseph E. Dillon (to June 1960).
 1940 population & (rank): 287,736 (33).
 1950 population & (rank): 311,349 (35).
 1940-50 population change: +8.2%.
 1958 estimated population: 343,000.
 1955 land area: 55.44 sq. mi.
 Altitude: Highest, 1,045 ft.; lowest, 683.
 Location: In SE central part of state, on Mississippi River.
 County: Seat of Ramsey Co.
 Churches: Protestant, 250; Catholic, 54; Jewish, 4.
 City-owned parks: 5 (2,300 ac.).
 Telephones (1958): 210,907.
 Radio stations: 4.
 Television stations: 3.
 Assessed valuation (1957): \$234,488,841.
 City tax rate (1958): \$107.14 per \$1,000.
 Bonded debt (Apr. 30, 1958): Gross, \$52,123,000; net, \$35,506,000.
 Revenue (1957): \$65,123,357.
 Expenditure (1957): \$64,465,621.

SAN ANTONIO, TEX.

Incorporated as city: 1809.
 Mayor: J. Edwin Kuykendall (to May 1959).
 City Manager: Lynn H. Andrews (apptd. Feb. 1958).
 1940 population & (rank): 253,854 (36).

1950 population & (rank): 408,442 (25).
 1940-50 population change: +60.9%.
 1957 land area: 154.08 sq. mi.
 Altitude: 728 ft.

Location: In south central part of state, on San Antonio River.
 County: Seat of Bexar Co.
 City-owned parks: Over 2,000 ac.
 Radio stations (1957): AM, 9; FM, 4.
 Television stations (1957): 4.
 Assessed valuation (1957): \$768,000,000.
 City tax rate (1957): \$1.96 per \$100.
 Bonded debt (1957): \$32,004,696.
 Revenue (1957): \$20,522,636.
 Expenditure (1957): \$18,797,482.

SAN DIEGO, CALIF.

Incorporated as city: 1850; again in 1872.
 Mayor: Charles C. Dail (to May 1959).
 City Manager: George E. Bean (apptd. Dec. 1957).
 1940 population & (rank): 203,341 (43).
 1950 population & (rank): 334,387 (31).
 1940-50 population change: +64.4%.
 1957 est. population: 516,000.
 1950 land area: 99.4 sq. mi.
 Altitude: Highest, 822 ft.; lowest, sea level.
 Location: In south part of state, on San Diego Bay.
 County: Seat of San Diego.
 Churches: Roman Catholic, 27; Jewish, 4; Protestant & other, 278.
 City-owned parks: 73 (6,417.8 ac.).
 Telephones: 225,286.
 Radio stations: AM, 9; FM, 2.
 Television stations: 2.
 Assessed valuation (1957-58): \$648,650,100.
 City tax rate (1957-58): \$1.70 per \$100.
 Bonded debt (1957-58): \$39,149,000.
 Revenue (1956-57): \$30,848,002.
 Expenditure (1957-58): \$43,703,947.

SAN FRANCISCO, CALIF.

Incorporated as city: 1850.
 Mayor: George Christopher (to Jan. 1960).
 1940 population & (rank): 634,536 (12).
 1950 population & (rank): 775,357 (11).
 1940-50 population change: +22.2%.
 1958 est. population: 813,000.
 1950 area: Land, 44.6 sq. mi.; inland water, 48.5.
 Altitude: Highest, 900 ft.; lowest, sea level.
 Location: Between Pacific Ocean and San Francisco Bay.
 County: Coextensive with San Francisco Co.
 Churches (1957): 485.
 City-owned parks & squares (1958): 50; playgrounds, 64; public camps (1957), 10.
 Telephones (1958): 492,715.
 Homes with radios (1958): 282,100.
 Television sets (1957): 266,215.
 Radio stations (1957): AM, 9; FM, 6 (3 under construction).
 Assessed valuation (1957-58): Land & buildings, \$1,078,528,052; tangible personal property, \$193,427,623; solvent credits, \$357,406,529.
 Assessed valuation of solvent credits (1956-57): \$859,860,944.
 City tax rate (1957-58): \$7.37 per \$100.
 Bonded debt (July 1, 1957): General city bonds, \$97,116,000; public service enterprise bonds, \$84,415,000.

General city revenue bonds (1956-57): \$165,850,-793.
General city expenditure (1956-57): \$162,379,214.

SEATTLE, WASH.

Incorporated as city: 1869.
Mayor: Gordon S. Clinton (to June 1960).
1940 population & (rank): 368,302 (22).
1950 population & (rank): 467,591 (19).
1956 est. population: 561,000.
1940-50 population change: +27.0%.
1957 area: Land, 91.57 sq. mi.; inland water, 12.2.
Altitude: Highest, 540 ft.; lowest, sea level.
Location: In west central part of state, on Puget Sound.
County: Seat of King Co.
Churches: Protestant, 267; Roman Catholic, 30; Jewish, 6.
City-owned parks: 183 (3,136 ac.).
Telephones (1957): 349,682.
Homes with radios (1957): 246,945.
Homes with television sets (1957): 312,900.*
Radio stations: AM, 13; FM, 4.
Television stations: 6.
Assessed valuation (1957): \$677,034,094.
City tax rate (1957): \$58.80 per \$1,000.
Bonded debt (Dec. 31, 1957): \$20,783,000.
General govt. revenue (1957): \$41,365,390.
General govt. expenditure (1957): \$39,267,102.
* Metropolitan area.

SYRACUSE, N. Y.

Incorporated as city: 1848.
Mayor: Anthony A. Henninger (Dec. 1961).
1940 population & (rank): 205,967 (41).
1950 population & (rank): 220,583 (47).
1940-50 population change: +7.1%.
1950 land area: 25.77 sq. mi.
Altitude: Highest, 840 ft.; lowest, 363.
Location: Central part of state, near Oneida Lake.
County: Seat of Onondaga Co.
Churches: Protestant, 76; Roman Catholic, 32; Jewish, 8; others, 8.
City-owned parks: 173 (2,152.37 ac.).
Telephones in Syracuse metropolitan area: 182,-835.
Radio sets, est. (1958): 402,670.
Radio stations: AM, 6; FM, 2.
Television stations: 2.
Assessed valuation (1957): Real estate, \$376,-861,837; special franchise, \$19,237,735.
City tax rate (1958): \$17.818 per \$1,000.
School tax rate (1958): \$19.965 per \$1,000.
Bonded debt (Jan. 1, 1958): \$6,558,350.
Revenue (1957): \$30,056,584.
Expenditure (1957): \$27,237,818.

TOLEDO, OHIO

Incorporated as city: 1837.
Mayor: John W. Yager (to Dec. 1959).
City Manager: Russell W. Rink (apptd. Feb. 1957).
1940 population & (rank): 282,340 (34).
1950 population & (rank): 303,616 (36).
1940-50 population change: +7.5%.
1957 land area: 43.5 sq. mi.
Altitude: 587 ft.
Location: In NW part of state, on Maumee River at Lake Erie.
County: Seat of Lucas Co.
Churches: Protestant, 258; Roman Catholic, 37; Jewish, 5.
City-owned parks & playgrounds: 52 (2,197 ac.).
Telephones (1958): 200,694.
Radio sets (1954): 95,420.
Television sets (1954): 107,100.
Radio stations: AM, 4; FM, 3.
Television stations: 1.
Assessed valuation (1957): \$836,290,010.
City tax rate (1958): \$25.30 per \$1,000.
Bonded debt: All offset by trust fund.
Revenue (1957): \$31,774,465.
Expenditure (1957): \$27,512,333.

WASHINGTON, D. C.

See District of Columbia in index.

WORCESTER, MASS.

Incorporated as town: 1722.
Incorporated as city: 1848.
Mayor: James D. O'Brien (to Jan. 1960).
City Manager: Francis J. McGrath (apptd. Apr. 1951).
1940 population & (rank): 193,694 (44).
1950 population & (rank): 203,486 (50).
1940-50 population change: +5.1%.
1955 population: 202,612.
1950 land area: 37.0 sq. mi.
Altitude: Highest, 1,051 ft.; lowest, 359 ft.
Location: In central part of state.
County: Seat of Worcester Co.
Churches: Protestant, 85; Roman Catholic, 30; Jewish, 10.
City-owned parks: 52 (1,319 ac.).
Telephones (1955): 82,782.
Radio sets (1955): 137,453.
Television sets (1955): 54,981.
Radio stations (1955): AM, 4; FM, 1.
Television stations (1955): 1.
Assessed valuation (1957): \$347,774,950.
City tax rate (1957): \$64.80 per \$1,000.
Bonded debt (Dec. 31, 1957): \$24,393,000.
Revenue (1957): \$43,518,531.
Expenditure (1957): \$43,518,531.

Projected Population by 1970 for Leading States*

Source: U. S. Bureau of the Census

	1955	Rank	1965	Rank	1970	Rank
New York	16,021,000	1	18,628,000	1	20,023,000	2
California	12,961,000	2	17,661,000	2	20,296,000	1
Pennsylvania	10,898,000	3	11,917,000	3	12,508,000	3
Illinois	9,301,000	4	10,613,000	5	11,353,000	5
Ohio	8,945,000	5	11,109,000	4	12,258,000	4
Texas	8,748,000	6	10,697,000	6	11,752,000	6
Michigan	7,326,000	7	9,380,000	7	10,483,000	7

* U. S. Armed Forces overseas are excl. ded.

Tabulated Data on State Governments

Source: Questionnaires to the states.

State	GOVERNOR		LEGISLATURE ¹				HIGHEST COURT ²				
	Term	Annual salary	Membership		Term		Members		Annual salary		
			U ³	L ⁴	U ³	L ⁴					
Alabama	4 ⁶	\$12,000	35	106	4	4	\$	10 per diem ³⁸	7	6	\$12,000
Alaska	4	(⁴⁵)	20	40	4	2	(⁴⁵)		3	10	(⁴⁵)
Arizona	2	18,500	28	80	2	2	8 per diem ¹⁹	5	6	15,000	
Arkansas	2	10,000	35	100	4	2	1,200 per biennium	7	8	15,000	
California	4	40,000	40	80	4	2	6,000 per annum	7	12	23,000	
Colorado	4	20,000	35	65	4	2	4,800 per biennium	7	10	15,000	
Connecticut	4	15,000	36	279	2	2	600 per term	5	8	19,000 ¹⁰	
Delaware	4	17,500	17	35	4	2	1,077 per annum	3	12	17,000 ²⁷	
Florida	4 ⁶	22,500	38	95	4	2	1,200 per annum ³⁹	7	6	17,500	
Georgia	4 ⁶	12,000 ²⁶	54	205	2	2	30 per diem	7	6	18,000	
Idaho	4	12,500	44	59	2	2	10 per diem	5	6	10,500	
Illinois	4	25,000	58	177	4	2	10,000 per biennium	7	9	20,000	
Indiana	4 ⁶	15,000	50	100	4	2	1,800 per annum	5	6	15,000	
Iowa	2	12,500	50	108	4	2	2,000 per session	9	6	12,000	
Kansas	2	15,000	40	125	4	2	5 per diem	7	6	12,000 ³²	
Kentucky	4 ⁶	15,000	38	100	4	2	25 per diem	7	8	12,000	
Louisiana	4 ⁶	18,000	39	101	4	4	50 per diem ⁴⁰	7	14	18,000	
Maine	4	10,000	33	151	2	2	1,400 per session	6	7	11,000 ²⁹	
Maryland	4 ⁸	15,000	29	123	4	4	1,800 per annum ⁴¹	5	15	21,000 ¹⁵	
Massachusetts	2	20,000	40	240	2	2	5,200 per annum ³⁸	7	Life	22,000 ³⁶	
Michigan	2	22,500	34	110	2	2	4,000 per annum	8	8	18,500	
Minnesota	2	19,000	67	131	4	2	4,800 per session ²⁴	7	6	19,000 ³⁰	
Mississippi	4 ⁶	15,000	49	140	4	4	3,000 per session	9	8	13,500 ⁴⁴	
Missouri	4 ⁶	25,000	34	157	4	2	1,500 per annum	7	12	17,500	
Montana	4	12,500	56	94	4	2	20 per diem	5	6	11,000	
Nebraska	2	11,000	43 ¹¹		2 ¹¹		872 per annum	7	6	12,000	
Nevada	4	18,000	17	47	4	2	25 per diem ¹⁹	3	6	18,000	
New Hampshire	2	15,500	24	(¹³)	2	2	200 per biennium	5	(¹⁴)	15,500	
New Jersey	4 ⁸	30,000	21	60	4	2	5,000 per annum ⁴²	7	(³⁴)	24,000 ¹²	
New Mexico	2 ⁸	17,500	32	66	4	2	20 per diem	5	8	15,000	
New York	4	50,000	58	150	2	2	7,500 per annum	7	14	32,500	
North Carolina	4 ⁸	15,000	50	120	2	2	15 per diem ³¹	7	8	16,000	
North Dakota	2	10,000	49	113	4	2	5 per diem	5	10	10,000	
Ohio	2	25,000	33	136	2	2	5,000 per annum	7	6	16,000	
Oklahoma	4 ⁶	15,000	44	(¹⁶)	4	2	15 per diem ¹⁷	9	6	12,500	
Oregon	4 ⁸	17,500	30	60	4	2	600 per annum	7	6	16,000	
Pennsylvania	4 ⁶	25,000	50	212	4	2	6,000 per session	7	21	25,000 ⁹	
Rhode Island	2	15,000	44	100	2	2	5 per diem ¹⁹	5	(²⁰)	17,000 ¹⁸	
South Carolina	4 ⁶	15,000	46	124	4	2	1,000 per session	5	10	12,500 ³⁷	
South Dakota	2 ⁸	13,000	35	75	2	2	1,800 per biennium	5	6	11,000	
Tennessee	4 ⁶	12,000	33	99	2	2	10 per diem ²²	5	8	15,000 ³⁵	
Texas	2	25,000	31	150	4	2	25 per diem ²⁸	(²¹)	6	20,000	
Utah	4	12,000	25	64	4	2	500 per annum ⁷	5	10	12,000	
Vermont	2	12,500	30	246	2	2	70 per week	5	2	10,500 ³³	
Virginia	4 ⁶	20,000	40	100	4	2	1,080 per session	7	12	17,500 ⁴³	
Washington	4	15,000	49	99	4	2	1,200 per annum	9	6	20,000	
West Virginia	4 ⁶	17,500	32	100	4	2	1,500 per annum	5	12	17,500	
Wisconsin	2	20,000	33	100	4	2	300 per month	7	10	17,500 ²⁸	
Wyoming	4	15,000	27	56	4	2	12 per diem	3	8	13,000	

¹ Known as **General Assembly** in Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia; **Legislative Assembly** in Montana, North Dakota, Oregon; **General Court** in Massachusetts, New Hampshire; **Legislature** in other states. Meets **annually** in Arizona, California, Maryland, Massachusetts, Michigan, New Jersey, New York, Rhode Island, South Carolina; **biennially** in other states. ² Known as **Court of Appeals** in Kentucky, Maryland, New York; **Supreme Court of Appeals** in Virginia, West Virginia; **Supreme Judicial Court** in Maine, Massachusetts; **Supreme Court of Errors** in Connecticut; **Supreme Court** in other states. ³ Upper house; known as **Senate** in all states. ⁴ Lower house; known as **Assembly** in California, Nevada, New York, Wisconsin; **House of Delegates** in Maryland, Virginia, West Virginia; **House of Representatives** in other states. ⁵ Does not include additional payment for expenses, mileage, etc. ⁶ Cannot succeed himself. ⁷ Plus \$5 per diem during sessions. ⁸ May not serve a third consecutive term. ⁹ Chief Justice, \$25,500. ¹⁰ Chief Justice, \$20,000. ¹¹ Unicameral legislature. ¹² Chief Justice, \$25,000. ¹³ Chief Justice, \$25,500. ¹⁴ Until 70 years old. ¹⁵ Chief Judge, \$22,000. ¹⁶ Varies from 120 to 123. ¹⁷ \$2,705.88 plus travel in 1957; \$100 per month plus travel during interim. ¹⁸ Chief Justice \$18,000. ¹⁹ For 60 days only. ²⁰ Term of good behavior. ²¹ 9 members in Supreme Court (highest in civil cases); 3 members in Court of Criminal Appeals. ²² For 75 days only; plus \$5 per diem expenses. ²³ For first 120 days only. ²⁴ House: Senate \$9,600. ²⁵ Chief Justice, \$24,000. ²⁶ Governor declined \$500 extra. ²⁷ Chief Justice, \$12,000. ²⁸ Chief Justice, \$17,500. ²⁹ For terms beginning after July 8, 1957. ³⁰ Chief Justice, \$11,000. ³¹ During good behavior; retired at 70. ³² Chief Justice, \$16,500. ³³ Chief Justice, \$23,000. ³⁴ Chief Justice, \$13,500. ³⁵ Speaker of House and President of Senate, \$10,400. ³⁶ Plus \$15 per diem when in session. ³⁷ Plus \$150 monthly allowance when not in session. ³⁸ President of Senate and Speaker of House of Delegates, \$2,050. ³⁹ President of Senate and Speaker of Assembly receive additional one third of regular salary. ⁴⁰ Chief Justice, \$18,500. ⁴¹ Chief Justice, \$14,250; Presiding Justice, \$13,625. ⁴² To be determined by the first State Legislature.

Tabulated Data on City Governments

Source: Questionnaires to the cities.

City	MAYOR		City manager's salary ^{1,2}	COUNCIL OR COMMISSION			
	Term, years	Salary ¹		Name	Members	Term, years	Salary ¹
Akron, Ohio.....	2	\$16,000	.....	Council	13	2	\$3,900
Atlanta, Ga.....	4	20,000	.....	Bd. of Aldermen	17	4	300 ¹⁷
Baltimore, Md.....	4	15,000	.....	Council	21	4	4,200 ²⁵
Birmingham, Ala.....	4	10,000	.....	Commission	3	4	9,000
Boston, Mass.....	4	20,000	.....	Council	9	2	5,000
Buffalo, N. Y.....	4	20,000	.....	Council	15	2 ⁴	6,000 ²⁰
Chicago, Ill.....	4	25,000	.....	Council	50	4	5,000 ¹⁴
Cincinnati, Ohio.....	2	10,608	\$30,000	Council	9	2	8,000
Cleveland, Ohio.....	2	25,000	.....	Council	33	2	5,000
Columbus, Ohio.....	4	11,500	.....	Council	7	4	1,000
Dallas, Tex.....	2	20 ⁸	22,500	Council	9	2	20 ⁸
Dayton, Ohio.....	4	1,800	25,000	Commission	5	4	1,200
Denver, Colo.....	4	14,000	.....	Council	9	4	3,000 ¹⁰
Detroit, Mich.....	4	25,000	.....	Council	9	4	12,000
Ft. Worth, Tex.....	2	10 ²²	19,200	Council	9	2	10 ²²
Houston, Tex.....	2	20,000	.....	Council	8	2	300 ⁷
Indianapolis, Ind.....	4	13,200	.....	Council	9	4	1,800 ¹⁶
Jacksonville, Fla.....	4	12,000	.....	(²²)	(²³)	4	(²³)
Jersey City, N. J.....	4	12,000	.....	Commission	5	4	11,250
Kansas City, Mo.....	4	15,000	27,500	Council	8	4	4,800
Long Beach, Calif.....	3	200 ³	22,500	Council	9	3	200 ³
Los Angeles, Calif.....	4	25,000	.....	Council	15	4	12,000
Louisville, Ky.....	4	12,000	.....	Bd. of Aldermen	12	2	2,400
Memphis, Tenn.....	4	17,500	.....	Commission	5	4	12,000
Miami, Fla.....	2	5,000	25,000	Commission	5	4	5,000
Milwaukee, Wis.....	4	20,000	.....	Council	20	4	7,500
Minneapolis, Minn.....	2	12,000	.....	Council	13	2	7,000
New Orleans, La.....	4	17,500	.....	Council	7	4	7,500
New York, N. Y.....	4	40,000	30,000 ²¹	Council	25	4	7,000
Newark, N. J.....	4	25,000	.....	Council	9	4	6,000 ¹⁸
Norfolk, Va.....	4	3,600	25,000	Council	7	4	2,400
Oakland, Calif.....	4	7,500	25,000	Council	9	4	120 ²
Oklahoma City, Okla.....	4	1,000	19,500	Council	8	4	10 ⁶
Omaha, Neb.....	4	17,500	.....	Council	7	4	3,000
Philadelphia, Pa.....	4	25,000	.....	Council	17	4	12,000 ⁹
Pittsburgh, Pa.....	4	20,000	.....	Council	9	4	10,000
Portland, Oreg.....	4	12,880	.....	Commission	4	4	11,080
Providence, R. I.....	2	15,000	.....	Council	26	2	1,500 ²⁶
Richmond, Va.....	2	1,800	23,000	Council	9 ¹²	2	1,200
Rochester, N. Y.....	2	1,500	20,100	Council	9	4	2,000
St. Louis, Mo.....	4	10,000	.....	Bd. of Aldermen	29	4	3,000 ¹¹
St. Paul, Minn.....	2	10,000	.....	Council	7 ¹²	2	9,000
San Antonio, Tex.....	2	3,000 ¹⁵	22,400	Council	9	2	1,040
San Diego, Calif.....	4	12,000	28,000	Council	6	4	5,000
San Francisco, Calif.....	4	25,200	24,000 ²⁷	Bd. of Supervisors	11	4	4,800
Seattle, Wash.....	4	15,000	.....	Council	9	4	7,200
Syracuse, N. Y.....	4	20,000	.....	Council	10	2 ¹⁸	3,000 ¹⁹
Toledo, Ohio.....	2	8,200	17,920	Council	9 ²⁴	2	3,600
Worcester, Mass.....	2	5,000	20,000	Council	9	2	4,000

¹ Annual, unless otherwise indicated. ² City Manager's term is indefinite and at will of Council. ³ Per month. ⁴ For 9 District Councilmen: 4 years for 5 Councilmen-at-large. ⁵ Per Council meeting. ⁶ For 3 members: 2 years for 2 members. ⁷ Per month part-time. ⁸ Per council meeting: not over \$1,040 per year. ⁹ President receives \$15,000. ¹⁰ President receives \$4,000. ¹¹ President receives \$5,000. ¹² Including Mayor. ¹³ Also \$1,000 in lieu of secretarial expenses; President receives \$6,500. ¹⁴ Chairman of Finance Committee receives \$3,500 additional. ¹⁵ Plus Council pay. ¹⁶ President and Chairman of Finance Comm. receive \$2,400. ¹⁷ Per month: President receives \$350. ¹⁸ President 5 District Councilmen: 4 years for 4 Councilmen-at-large and President. ¹⁹ President receives \$4,000. ²⁰ President receives \$12,000. ²¹ Appointed at pleasure of Mayor, with title of City Administrator. ²² Per week and per Council meeting. ²³ City has both Council and Commission. Council: members: 9; salary, \$1,500. Commission: members, 5; salary, \$6,000. ²⁴ Including Mayor and Vice-Mayor; latter receives \$5,600. ²⁵ President receives \$6,500, Vice President \$4,725. ²⁶ President receives \$2,000. ²⁷ Chief Administrative Officer; appointed by Mayor, for life.

UNITED STATES STATISTICS

POPULATION

Population of the Continental U. S.

Source: U. S. Bureau of the Census.

Colonial estimates		National censuses				Projections	
Year	Population	Year	Population	Land area, sq. mi.	Pop. per sq. mi.	Year	Population
							NOTE A
1610.....	210	1790.....	3,929,214	867,980	4.5	1960.....	179,358,000
1620.....	2,499	1800.....	5,308,483	867,980	6.1	1965.....	193,346,000
1630.....	5,700	1810.....	7,239,881	1,685,865	4.3	1970.....	209,380,000
1640.....	27,947	1820.....	9,638,453	1,753,588	5.5	1975.....	228,463,000
							NOTE B
1650.....	51,700	1830.....	12,866,020	1,753,588	7.3		
1660.....	84,800	1840.....	17,069,453	1,753,588	9.7	1960.....	177,840,000
1670.....	114,500	1850.....	23,191,876	2,944,337	7.9	1965.....	190,296,000
1680.....	155,600	1860.....	31,443,321	2,973,965	10.6	1970.....	204,620,000
1690.....	213,500	1870.....	39,818,449	2,973,965	13.4	1975.....	221,522,000
							NOTE C
1700.....	275,000	1880.....	50,155,783	2,973,965	16.9		
1710.....	357,500	1890.....	62,947,714	2,973,965	21.2	1960.....	177,840,000
1720.....	474,388	1900.....	75,994,575	2,974,159	25.6	1965.....	190,296,000
1730.....	654,950	1910.....	91,972,266	2,973,890	30.9	1970.....	202,984,000
1740.....	889,000	1920.....	105,710,620	2,973,776	35.5	1975.....	214,580,000
							NOTE D
1750.....	1,207,000	1930.....	122,775,046	2,977,128	41.2		
1760.....	1,610,000	1940.....	131,669,275	2,977,128	44.2	1960.....	176,452,000
1770.....	2,205,000	1950.....	151,132,000†	2,974,726	50.8	1965.....	186,291,000
1780.....	2,781,000	1958*.....	173,888,000†	2,974,726	58.4	1970.....	196,370,000
						1975.....	206,907,000

* Estimate, June 1, 1958. † Includes armed forces overseas. NOTE A: Projections assuming birth rates of 1954-55 remain constant. NOTE B: Projections assuming birth rates of 1950-53 remain constant. NOTE C: Projections assuming birth rates of 1950-53 remain constant to 1965 and then decline. NOTE D: Projections assuming birth rates of 1950-53 decline rapidly to roughly the prewar level by 1975.

Estimates of World Population by Regions, 1650-1950

Source: W. F. Willcox, 1650-1900; United Nations, 1920-1950.

Date	Estimated population in millions						
	Africa	North America*	Latin America†	Asia (exc. U.S.S.R.)‡	Europe and Asiatic U.S.S.R.‡	Oceania	World total
1650.....	100	1	7	257	103	2	470
1750.....	100	1	10	437	144	2	694
1800.....	100	6	23	505	193	2	919
1850.....	100	26	33	656	274	2	1,091
1900.....	141	81	63	857	423	6	1,571
1920.....	136	115	92	997	485	9	1,834
1930.....	155	134	110	1,069	530	10	2,008
1940.....	177	144	132	1,173	579	11	2,216
1950.....	199	166	162	1,272	594	13	2,406

* United States, Canada, Alaska, St. Pierre and Miquelon. † Mexico, Central and South America and Caribbean Islands. ‡ Estimates for Asia and Europe by Willcox have been adjusted so as to include the population of Asiatic U.S.S.R. with that of Europe rather than Asia.

Distribution of U. S. Population According to Size of Place, 1790 to 1950

Source: U. S. Bureau of the Census.

Census year	Total population	Population distribution (Total for year = 100%)					Number of urban places of specified size		
		Total urban	Urban places of			Total rural	1,000,000 or more	100,000 to 1,000,000	Under 100,000
			1,000,000 or more	100,000 to 1,000,000	Under 100,000				
1790.....	3,929,214	5.1	—	—	5.1	94.9	—	—	24
1800.....	5,308,483	6.1	—	—	6.1	93.9	—	—	33
1810.....	7,239,881	7.3	—	—	7.3	92.7	—	—	46
1820.....	9,638,453	7.2	—	1.3	5.9	92.8	—	1	60
1830.....	12,866,020	8.8	—	1.6	7.2	91.2	—	1	89
1840.....	17,069,453	10.8	—	3.0	7.8	89.2	—	3	128
1850.....	23,191,876	15.3	—	5.1	10.2	84.7	—	6	230
1860.....	31,443,321	19.8	—	8.4	11.4	80.2	—	9	383
1870.....	38,558,371	25.7	—	10.7	15.0	74.3	—	14	649
1880.....	50,155,783	28.2	2.4	10.0	15.8	71.8	1	19	919
1890.....	62,947,714	35.1	5.8	9.6	19.7	64.9	3	25	1,320
1900.....	75,994,575	39.7	8.5	10.2	21.0	60.3	3	35	1,699
1910.....	91,972,266	45.7	9.2	12.9	23.6	54.3	3	47	2,212
1920.....	105,710,620	51.2	9.6	16.3	25.3	48.8	3	65	2,654
1930.....	122,775,046	56.2	12.3	17.3	26.6	43.8	5	88	3,072
1940.....	131,669,275	56.5	12.1	16.8	27.6	43.5	5	87	3,372
1950*.....	150,697,361	59.0	11.5	18.0	29.5	41.0	5	102	3,916
1950†.....	150,697,361	64.0	11.5	17.9	34.6	36.0	5	101	4,635

* Old urban definition. † New urban definition.

White and Negro Population by State, 1950 Census

Source: U. S. Bureau of the Census.

State	White	Negro	Other	State	White	Negro	Other
Alabama.....	2,079,591	979,617	2,535	Nebraska.....	1,301,328	19,234	4,948
Arizona.....	654,511	25,974	69,102	Nevada.....	149,908	4,302	5,873
Arkansas.....	1,481,507	426,639	1,365	New Hampshire..	532,275	731	236
California.....	9,915,173	462,172	208,878	New Jersey.....	4,511,585	318,565	5,179
Colorado.....	1,296,653	20,177	8,259	New Mexico.....	630,211	8,408	42,568
Connecticut.....	1,952,329	53,472	1,479	New York.....	13,872,095	918,191	39,906
Delaware.....	273,878	43,598	609	North Carolina..	2,983,121	1,047,353	31,455
D. C.....	517,865	280,803	3,510	North Dakota....	608,448	257	10,931
Florida.....	2,166,051	603,101	2,153	Ohio.....	7,428,222	513,072	5,333
Georgia.....	2,380,577	1,062,762	1,239	Oklahoma.....	2,032,526	145,503	55,322
Idaho.....	581,395	1,050	6,192	Oregon.....	1,497,128	11,529	12,684
Illinois.....	8,046,058	645,980	20,138	Pennsylvania.....	9,853,848	638,485	5,679
Indiana.....	3,758,512	174,168	1,544	Rhode Island....	777,015	13,903	978
Iowa.....	2,599,546	19,692	1,835	South Carolina...	1,293,405	822,077	1,545
Kansas.....	1,828,961	73,158	3,180	South Dakota....	628,504	727	23,509
Kentucky.....	2,742,090	201,921	795	Tennessee.....	2,760,257	530,603	858
Louisiana.....	1,796,683	882,428	4,405	Texas.....	6,726,534	977,458	7,202
Maine.....	910,846	1,221	1,707	Utah.....	676,909	2,729	9,224
Maryland.....	1,954,975	385,972	2,054	Vermont.....	377,188	443	116
Massachusetts.....	4,611,503	73,171	5,840	Virginia.....	2,581,555	734,211	2,914
Michigan.....	5,917,825	442,296	11,645	Washington.....	2,316,496	30,691	31,776
Minnesota.....	2,953,697	14,022	14,764	West Virginia...	1,890,282	114,867	403
Mississippi.....	1,188,632	986,494	3,788	Wisconsin.....	3,392,690	28,182	13,703
Missouri.....	3,655,593	297,088	1,972	Wyoming.....	284,009	2,557	3,963
Montana.....	572,038	1,232	17,754	TOTAL U. S.....	134,942,028	15,042,286	713,047

Note: Figures for Alaska not available.

Distribution of U. S. Population by Race, 1850-1950

Source: U. S. Bureau of the Census.

Year	White	Nonwhite					Total Nonwhite
		Negro	Indian	Japanese	Chinese	All other	
1850.....	19,553,068	3,638,808	.....	.....	.....	.....	3,638,808
1860.....	26,922,537	4,441,830	44,021	.....	34,933	.....	4,520,784
1870.....	33,589,377	4,880,009	25,731	55	63,199	.....	4,968,994
1880.....	43,402,970	6,580,793	66,407	148	105,465	.....	6,752,813
1890.....	55,101,258	7,488,676	248,253	2,039	107,488	.....	7,846,456
1900.....	66,809,196	8,833,994	237,196	24,326	89,863	.....	9,185,379
1910.....	81,731,957	9,827,763	265,683	72,157	71,531	3,175	10,240,309
1920.....	94,820,915	10,463,131	244,437	111,010	61,639	9,488	10,889,705
1930.....	110,286,740	11,891,143	332,397	138,834	74,954	50,978	12,488,306
1940.....	118,214,870	12,865,518	333,969	126,947	77,504	50,467	13,454,405
1950.....	134,942,028	15,042,286	343,410	141,768	117,629	110,240	15,755,333
Urban.....	86,756,435	9,392,608	56,108	100,735	109,434	52,366	9,711,251
Rural nonfarm.....	28,470,339	2,491,377	178,678	14,260	5,844	20,827	2,710,986
Rural farm.....	19,715,254	3,158,301	108,624	26,773	2,351	37,047	3,333,096

United States Population Distribution by Age, Race, Nativity and Sex, 1850-1957

Source: Mortimer Spiegelman, *Introduction to Demography*, and Bureau of Census

Year	Total	Age					Race and Nativity			
		Under 5	5-19	20-44	45-64	65 and over	White			Nonwhite
							Total	Native born	Foreign born	
	Per cent distribution									
1850*	100.0	15.1	37.4	35.1	9.8	2.6	84.3	74.6	9.7	15.7
1860†	100.0	15.4	35.8	35.7	10.4	2.7	85.6	72.6	13.0	14.4
1870†	100.0	14.3	35.4	35.4	11.9	3.0	87.1	72.9	14.2	12.9
1880†	100.0	13.8	34.3	35.9	12.6	3.4	86.5	73.4	13.1	13.5
1890†	100.0	12.2	33.9	36.9	13.1	3.9	87.5	73.0	14.5	12.5
1900.....	100.0	12.1	32.3	37.8	13.7	4.1	87.9	74.5	13.4	12.1
1910.....	100.0	11.6	30.4	39.1	14.6	4.3	88.9	74.4	14.5	11.1
1920.....	100.0	11.0	29.8	38.4	16.1	4.7	89.7	76.7	13.0	10.3
1930.....	100.0	9.3	29.5	38.3	17.5	5.4	89.8	78.4	11.4	10.2
1940.....	100.0	8.0	26.4	38.9	19.8	6.9	89.8	81.1	8.7	10.2
1950§	100.0	10.7	23.2	37.7	20.3	8.1	89.5	82.8	6.7	10.5
1957§	100.0	11.2	26.2	33.8	20.2	8.6	89.0	¶	¶	11.0
	Males per 100 females									
1850*	104.3	102.4	100.9	108.1	106.4	101.3	105.2	103.1	123.8	99.1
1860†	104.7	102.4	101.2	107.9	111.5	98.3	105.3	103.7	115.1	101.2
1870†	102.2	102.9	101.2	99.2	114.5	100.5	102.8	100.6	115.3	98.4
1880†	103.6	103.0	101.3	104.0	110.2	101.4	104.0	102.1	115.9	100.7
1890†	105.0	103.6	101.4	107.3	108.3	104.2	105.4	102.9	118.7	102.2
1900.....	104.4	102.1	100.9	105.8	110.7	102.0	104.9	102.8	117.4	101.0
1910.....	106.0	102.5	101.3	108.1	114.4	101.1	106.6	102.7	129.2	101.3
1920.....	104.0	102.5	100.8	102.8	115.2	101.3	104.4	101.7	121.7	100.9
1930.....	102.5	103.0	101.4	100.5	109.1	100.5	102.9	101.1	115.8	99.1
1940.....	100.7	103.2	102.0	98.1	105.2	95.5	101.2	100.1	111.1	96.7
1950§	99.0	103.9	102.9	97.0	100.2	89.6	99.4	99.0	103.9	96.2
1957§	98.2	103.8	103.9	97.5	95.6	84.8	98.6	¶	¶	95.6

* Excludes nonwhite races other than Negro. † Excludes Indians in Indian Territory and on Indian reservations. ‡ The age figures exclude all persons residing on Indian reservations, whether white or nonwhite; these persons are included in the race and nativity distributions. § Includes armed forces overseas and other persons abroad. ¶ Not available. NOTE: For 1850 and 1860, the data in the census reports at ages 40-49 and 60-69 are published in 10-year age groupings; these were subdivided into 5-year age groupings by the author.

U. S. Population by Age, Sex and Race, July 1, 1957

Source: U. S. Bureau of the Census.

Age	White		Nonwhite		Total	
	Male	Female	Male	Female	Male	Female
Under 5 years.....	8,424,000	8,068,000	1,329,000	1,324,000	9,752,000	9,392,000
Under 1 year.....	1,665,000	1,596,000	265,000	266,000	1,930,000	1,862,000
1 and 2 years.....	3,378,000	3,234,000	536,000	534,000	3,915,000	3,768,000
3 and 4 years.....	3,380,000	3,238,000	527,000	524,000	3,907,000	3,762,000
5 to 9 years.....	7,968,000	7,595,000	1,222,000	1,208,000	9,190,000	8,803,000
10 to 14 years.....	6,746,000	6,449,000	897,000	895,000	7,643,000	7,345,000
15 to 19 years.....	5,262,000	5,081,000	743,000	744,000	6,005,000	5,826,000
20 to 24 years.....	4,751,000	4,684,000	648,000	671,000	5,399,000	5,355,000
25 to 29 years.....	5,092,000	5,073,000	619,000	686,000	5,711,000	5,758,000
30 to 34 years.....	5,405,000	5,575,000	616,000	703,000	6,021,000	6,277,000
35 to 39 years.....	5,315,000	5,486,000	565,000	633,000	5,880,000	6,119,000
40 to 44 years.....	5,020,000	5,189,000	530,000	602,000	5,550,000	5,791,000
45 to 49 years.....	4,684,000	4,822,000	496,000	539,000	5,180,000	5,361,000
50 to 54 years.....	4,090,000	4,218,000	421,000	440,000	4,512,000	4,658,000
55 to 59 years.....	3,568,000	3,761,000	346,000	358,000	3,913,000	4,119,000
60 to 64 years.....	3,076,000	3,320,000	258,000	267,000	3,334,000	3,587,000
65 to 69 years.....	2,459,000	2,707,000	183,000	192,000	2,643,000	2,899,000
70 to 74 years.....	1,811,000	2,119,000	128,000	137,000	1,939,000	2,256,000
75 to 79 years.....	1,141,000	1,442,000	90,000	101,000	1,231,000	1,543,000
80 to 84 years.....	564,000	750,000	44,000	48,000	608,000	798,000
85 years and over.....	312,000	438,000	36,000	47,000	348,000	485,000
All ages.....	75,688,000	76,776,000	9,170,000	9,595,000	84,858,000	86,371,000
5 to 17 years.....	17,946,000	17,162,000	2,571,000	2,559,000	20,516,000	19,722,000
14 years and over.....	53,870,000	55,933,000	5,888,000	6,333,000	59,758,000	62,265,000
18 years and over.....	49,319,000	51,545,000	5,271,000	5,712,000	54,590,000	57,257,000
21 years and over.....	46,324,000	48,638,000	4,844,000	5,286,000	51,168,000	53,924,000
65 years and over.....	6,287,000	7,456,000	482,000	525,000	6,769,000	7,980,000
Median age, years.....	29.6	31.3	23.0	24.7	28.9	30.6

NOTE: Data relate to the total population of the continental United States, including the armed forces overseas.

Immigrants and Emigrants; United States, 1911-1957

Source: U. S. Immigration and Naturalization Service and U. S. Bureau of the Census.

Period*	Immigrants	Emigrants	Excess of immigrants over emigrants	Period*	Immigrants	Emigrants	Excess of immigrants over emigrants
1911-15.....	4,459,831	1,444,530	3,015,301	1936-40.....	308,222	135,875	172,347
1916-20.....	1,275,980	702,464	573,516	1941-45.....	170,952	42,696	128,256
1921-25.....	2,638,913	697,397	1,941,516	1946-50.....	864,087	113,703	750,384
1926-30.....	1,468,296	347,679	1,120,617	1951-55.....	1,087,638	134,220	953,418
1931-35.....	220,209	323,863	-103,654	1956-57.....	648,492	46,757	601,735

* Fiscal years ending June 30.

Persons Naturalized Since 1907

Source: U. S. Immigration and Naturalization Service.

Period*	Civilian	Military	Total	Period*	Civilian	Military	Total
1907-10.....	111,738	.....	111,738	1953.....	90,476	1,575	92,051
1911-20.....	884,672	244,300	1,128,972	1954.....	104,086	13,745	117,831
1921-30.....	1,716,979	56,206	1,773,185	1955.....	197,568	11,958	209,526
1931-40.....	1,498,573	19,891	1,518,464	1956.....	138,681	7,204	145,885
1941-50.....	1,837,229	149,799	1,987,028	1957.....	137,198	845	138,043
1951.....	53,741	975	54,716	1907-57.....	6,858,011	508,083	7,366,094
1952.....	87,070	1,585	88,655				

* Fiscal years ending June 30.

Immigration by Country of Origin, 1820 to 1957

Source: Immigration and Naturalization Service.

(Figures are totals, not annual averages, and were tabulated as follows: 1820-67, alien passengers arrived; 1868-91 and 1895-97, immigrant aliens arrived; 1892-94 and 1898 to present, immigrant aliens admitted; Data before 1906 relate to country whence alien came; since 1906, to country of last permanent residence.)

Countries	1820-1910	1911-1920	1921-1930	1931-1940	1941-1950	1951-1957	1820-1957
Europe: Albania ¹			1,663	2,040	85	38	3,826
Austria ²	3,172,461	453,649	32,868	3,563	24,860	58,032	3,745,433
Belgium	103,796	33,746	15,846	4,817	12,189	14,753	185,147
Bulgaria ³	39,440	22,533	2,945	938	375	68	66,299
Czechoslovakia ¹		3,426	102,194	14,393	8,347	432	128,792
Denmark	258,053	41,983	32,430	2,559	5,393	7,429	347,847
Estonia ¹			1,576	506	212	126	2,420
Finland ¹		756	16,691	2,146	2,503	3,369	25,465
France	470,868	61,897	49,610	12,623	38,809	34,180	667,987
Germany ²	5,351,746	143,945	412,202	114,058	226,578	386,776	6,635,305
Great Britain: England	2,212,071	249,944	157,420	21,756	112,252	104,870	2,858,313
Scotland	488,749	78,357	159,781	6,887	16,131	22,471	772,376
Wales	59,540	13,107	13,012	735	3,209	1,834	91,437
Not specified ⁴	793,741					3,181	796,922
Greece	186,204	184,201	51,084	9,119	8,973	36,629	476,210
Hungary ²		442,693	30,680	7,861	3,469	6,826	491,529
Ireland	4,212,169	146,181	220,591	13,167	26,967	34,685	4,653,760
Italy	3,086,356	1,109,524	455,315	68,028	57,661	132,203	4,909,087
Latvia ¹			3,399	1,192	361	212	5,164
Lithuania ¹			6,015	2,201	683	107	9,006
Luxemburg ¹			727	565	820	471	2,583
Netherlands	175,943	43,718	26,948	7,150	14,860	36,243	304,862
Norway ⁵	665,189	66,395	68,531	4,740	10,100	15,944	830,899
Poland ⁶	165,182	4,813	227,734	17,026	7,571	1,499	423,825
Portugal	132,989	89,732	29,994	3,329	7,423	8,635	272,102
Rumania ⁷	72,117	13,311	67,646	3,871	1,076	428	158,449
Spain	69,296	68,611	28,958	3,258	2,898	4,405	177,426
Sweden ⁸	1,021,165	95,074	97,249	3,960	10,665	14,559	1,242,672
Switzerland	237,401	23,091	29,676	5,512	10,547	11,870	318,097
Turkey in Europe	85,800	54,677	14,659	737	580	1,140	157,593
U.S.S.R. ⁸	2,359,048	921,201	61,742	1,356	548	202	3,344,097
Yugoslavia ⁹		1,888	49,064	5,835	1,576	4,277	62,640
Other Europe	2,605	8,111	9,603	2,361	3,983	6,832	33,495
Total Europe	25,421,929	4,376,564	2,477,853	348,289	621,704	954,726	34,201,065
Asia: China	326,060	21,278	29,907	4,928	16,709	5,432	404,314
India	5,409	2,082	1,886	496	1,761	1,055	12,689
Japan ⁹	158,344	83,837	33,462	1,948	1,555	27,456	306,602
Turkey in Asia ¹⁰	106,481	79,389	19,165	328	218	240	205,821
Other Asia	16,942	5,973	12,980	7,644	11,537	45,537	100,613
Total Asia ¹⁵	613,236	192,559	97,400	15,344	31,780	79,720	1,030,039
America: Canada & Newfoundland ¹¹	1,230,501	742,185	924,515	108,527	171,718	251,542	3,428,988
Central America	10,365	17,159	15,769	5,861	21,665	25,278	96,097
Mexico ¹²	77,645	219,004	459,287	22,319	60,589	217,403	1,056,247
South America	29,385	41,899	42,215	7,803	21,831	47,965	191,098
West Indies	233,146	123,424	74,899	15,502	49,725	80,363	577,059
Other America ¹³			31	25	29,276	48,675	78,007
Total America	1,581,042	1,143,671	1,516,716	160,037	354,804	671,226	5,427,496
Africa	9,581	8,443	6,286	1,750	7,367	8,167	41,594
Australia & New Zealand	31,654	12,348	8,299	2,231	13,805	5,953	74,290
Pacific Islands ¹⁶	8,859	1,079	427	780	5,437	3,904	20,486
Countries not specified	252,691 ¹⁴	1,147	228		142	-12,434	266,642
Total all countries	27,918,992	5,735,811	4,107,209	528,431	1,035,039	1,736,130	41,061,612

¹ Countries established since beginning of World War I are theretofore included with countries to which they belonged. ² Data for Austria-Hungary not reported until 1861. Austria and Hungary recorded separately after 1905. Austria included with Germany 1838-45. ³ Bulgaria, Serbia, Montenegro first reported in 1899. Bulgaria reported separately since 1920. In 1920, separate enumeration for Kingdom of Serbs, Croats, Slovenes; since 1922, recorded as Yugoslavia. ⁴ United Kingdom not specified for 1901-51, included in "Other Europe." ⁵ Norway included with Sweden 1820-68. ⁶ Included with Austria-Hungary. Germany and Russia, 1899-1919. ⁷ No record of immigration until 1880. ⁸ Since 1931, U.S.S.R. has been broken down into European Russia and Siberia or Asiatic Russia. ⁹ No record of immigration until 1861. ¹⁰ No record of immigration until 1869. ¹¹ Includes all British North American possessions 1820-98. ¹² No record of immigration 1886-93. ¹³ Included with "Countries not specified" prior to 1925. ¹⁴ Includes 32,897 persons returning in 1906 to their homes in U.S. ¹⁵ From 1952, Asia included Philippines. From 1934-51, Philippines included in Pacific Islands; before 1934, recorded in separate tables as insular travel.

United States Population by State, 1790 to 1957

Source: U. S. Bureau of the Census.

States	Population			1950			July 1, 1957	
	1790	1850	1900	Population	Land area, sq. mi.	Pop. per sq. mi.	Population	Rank
Alabama.....		771,623	1,828,697	3,061,743	51,078	59.9	3,151,000	19
Alaska.....			63,592	128,643	586,400	4.4	206,000†	50
Arizona.....			122,931	749,587	113,575	6.6	1,136,000	35
Arkansas.....		209,897	1,311,564	1,909,511	52,675	36.6	1,768,000	32
California.....		92,597	1,485,053	10,586,223	156,740	67.5	13,922,000	2
Colorado.....			539,700	1,325,089	103,922	12.8	1,673,000	33
Connecticut.....	237,946	370,792	908,420	2,007,280	4,899	409.7	2,252,000	27
Delaware.....	59,096	91,532	184,735	318,085	1,978	160.8	438,000	46
D. C.....		51,687	278,718	802,178	61	13,150.5	831,000	39
Florida.....		87,445	528,542	2,771,305	54,262	51.1	4,098,000	13
Georgia.....	82,548	906,185	2,216,331	3,444,578	58,483	58.9	3,779,000	16
Idaho.....			161,772	588,637	82,769	7.1	640,000	44
Illinois.....		851,470	4,821,550	8,712,176	55,935	155.8	9,637,000	4
Indiana.....		988,416	2,516,462	3,934,224	36,205	108.7	4,533,000	10
Iowa.....		192,214	2,231,853	2,621,073	56,045	46.8	2,799,000	23
Kansas.....			1,470,495	1,905,299	82,108	23.2	2,136,000	29
Kentucky.....	73,677	982,405	2,147,174	2,944,806	39,864	73.9	3,040,000	21
Louisiana.....		517,762	1,381,625	2,683,516	45,162	59.4	3,068,000	20
Maine.....	96,540	583,169	694,466	913,774	31,040	29.4	943,000	36
Maryland.....	319,728	583,034	1,188,044	2,343,001	9,881	237.1	2,895,000	22
Massachusetts.....	378,787	994,514	2,805,346	4,690,514	7,867	596.2	4,866,000	9
Michigan.....		397,654	2,420,982	6,371,766	57,022	111.7	7,803,000	7
Minnesota.....		6,077	1,751,394	2,982,483	80,009	37.3	3,321,000	18
Mississippi.....		606,526	1,551,270	2,178,914	47,248	46.1	2,185,000	28
Missouri.....		682,044	3,106,665	3,954,653	69,226	57.1	4,255,000	12
Montana.....			243,329	591,024	145,878	4.1	666,000	42
Nebraska.....			1,066,300	1,325,510	76,663	17.3	1,452,000	34
Nevada.....			42,335	160,083	109,789	1.5	267,000	49
New Hampshire.....	141,885	317,976	411,538	533,242	9,017	59.1	572,000	45
New Jersey.....	184,139	489,555	1,883,669	4,835,329	7,522	642.8	5,627,000	8
New Mexico.....		61,547	195,310	681,187	121,511	5.6	830,000	40
New York.....	340,120	3,097,394	7,268,894	14,830,192	47,944	309.3	15,888,000	1
North Carolina.....	393,751	869,039	1,893,810	4,061,929	49,097	82.7	4,498,000	11
North Dakota.....			319,146	619,636	70,057	8.8	644,000	43
Ohio.....		1,980,329	4,157,545	7,946,627	41,000	193.8	9,200,000	5
Oklahoma.....			790,391*	2,233,351	69,031	32.4	2,277,000	26
Oregon.....		13,294	413,536	1,521,341	96,315	15.8	1,769,000	31
Pennsylvania.....	434,373	2,311,786	6,302,115	10,498,012	45,045	233.1	11,043,000	3
Rhode Island.....	68,825	147,545	428,556	791,896	1,058	748.5	862,000	37
South Carolina.....	249,073	668,507	1,340,316	2,117,027	30,305	69.9	2,370,000	25
South Dakota.....			401,570	652,740	76,536	8.5	702,000	41
Tennessee.....	35,691	1,002,717	2,020,616	3,291,718	41,797	78.8	3,463,000	17
Texas.....		212,592	3,048,710	7,711,194	263,513	29.3	9,138,000	6
Utah.....		11,380	276,749	688,862	82,346	8.4	851,000	38
Vermont.....	85,425	314,120	343,641	377,747	9,278	40.7	376,000	47
Virginia.....	747,610	1,421,661	1,854,184	3,318,680	39,893	83.2	3,797,000	15
Washington.....			518,103	2,378,963	66,786	35.6	2,722,000	24
West Virginia.....			958,800	2,005,552	24,080	83.3	1,976,000	30
Wisconsin.....		305,391	2,069,042	3,434,575	54,705	62.8	3,862,000	14
Wyoming.....			92,531	290,529	97,506	3.0	316,000	48

* Includes population of Indian Territory: 1900, 392,960. † July 1, 1956.

Population and Area of Major U. S. Cities,

Census Years, 1920-1950

(Over 50,000 population in 1950)

Source: U. S. Bureau of the Census.

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area sq. mi.*
Akron, Ohio	208,435	255,040	244,791	274,605	12.2	39	53.7
Alameda, Calif.	28,806	35,033	36,256	64,430	77.7	184	10.7
Albany, N. Y.	113,344	127,412	130,577	134,995	3.4	68	19.0
Albuquerque, N. Mex.	15,157	26,570	35,449	96,815	173.1	112	47.9
Alexandria, Va.	18,060	24,149	33,523	61,787	84.3	192	7.5
Alhambra, Calif.	9,096	29,472	38,935	51,359	31.9	224	7.0
Allentown, Pa.	73,502	92,563	96,904	106,756	10.2	99	15.9
Altoona, Pa.	60,331	82,054	80,214	77,177	-3.8	150	10.0
Amarillo, Tex.	15,494	43,132	51,686	74,246	43.6	155	20.9
Asheville, N. C.	28,504	50,193	51,310	53,000	3.3	215	14.5
Atlanta, Ga.	200,616	270,366	302,288	331,314	9.6	33	36.9
Atlantic City, N. J.	50,707	66,198	64,094	61,657	-3.8	193	11.5
Augusta, Ga.	52,548	60,342	65,919	71,508	8.5	165	9.8
Aurora, Ill.	36,397	46,589	47,170	50,576	7.2	230	8.1
Austin, Tex.	34,876	53,120	87,930	132,459	50.6	72	32.1
Baltimore, Md.	733,826	804,874	859,100	949,708	10.5	6	78.7
Baton Rouge, La.	21,782	30,729	34,719	125,629	261.8	81	30.2
Bay City, Mich.	47,554	47,355	47,956	52,523	9.5	218	9.6
Bayonne, N. J.	76,754	88,979	79,198	77,203	-2.5	149	5.2
Beaumont, Tex.	40,422	57,732	59,061	94,014	59.2	118	31.4
Berkeley, Calif.	56,036	82,109	85,547	113,805	33.0	90	9.5
Berwyn, Ill.	14,150	47,027	48,451	51,280	5.8	225	3.8
Bethlehem, Pa.	50,358	57,892	58,490	66,340	13.4	176	18.6
Binghamton, N. Y.	66,800	76,662	78,309	80,674	3.0	139	10.1
Birmingham, Ala.	178,806	259,678	267,583	326,037	21.8	34	65.3
Boston, Mass.	748,060	781,188	770,816	801,444	4.0	10	47.8
Bridgeport, Conn.	143,555	146,716	147,121	158,709	7.9	63	14.6
Brockton, Mass.	66,254	63,797	62,343	62,860	0.8	191	21.4
Buffalo, N. Y.	506,775	573,076	575,901	580,132	0.7	15	39.4
Burbank, Calif.	2,913	16,662	34,337	78,577	128.8	146	16.8
Cambridge, Mass.	109,694	113,643	110,879	120,740	8.9	86	6.2
Camden, N. J.	116,309	118,700	117,536	124,555	6.0	85	8.6
Canton, Ohio	87,091	104,906	108,401	116,912	7.9	88	14.1
Cedar Rapids, Iowa	45,566	56,097	62,120	72,296	16.4	161	25.4
Charleston, S. C.	67,957	62,265	71,275	70,174	-1.5	170	5.1
Charleston, W. Va.	39,608	60,408	67,914	73,501	8.2	159	9.6
Charlotte, N. C.	46,338	82,675	100,899	134,042	32.8	69	30.0
Chattanooga, Tenn.	57,895	119,798	128,163	131,041	2.2	73	28.0
Chester, Pa.	58,030	59,164	59,285	66,039	11.4	179	4.7
Chicago, Ill.	2,701,705	3,376,438	3,396,868	3,620,962	6.6	2	207.5
Cicero, Ill.	44,995	66,602	64,712	67,544	4.4	173	5.8
Cincinnati, Ohio	401,247	451,160	455,610	503,998	10.6	18	75.1
Cleveland, Ohio	796,841	900,429	878,336	914,808	4.2	7	75.0
Cleveland Heights, Ohio	15,236	50,945	54,992	59,141	7.5	198	8.2
Clifton, N. J.	26,470	46,875	48,827	64,511	32.1	182	11.7
Columbia, S. C.	37,524	51,581	62,396	86,914	39.3	129	12.8
Columbus, Ga.	31,125	43,131	53,280	79,611	49.4	142	12.0
Columbus, Ohio	237,031	290,564	306,087	375,901	22.8	28	39.4
Corpus Christi, Tex.	10,522	27,741	57,301	108,287	89.0	97	21.5
Covington, Ky.	57,121	65,252	62,018	64,452	3.9	183	6.4
Cranston, R. I.	29,407	42,911	47,085	55,060	16.9	210	28.7
Dallas, Tex.	158,976	260,475	294,734	434,462	47.4	22	112.0
Davenport, Iowa	56,727	60,751	66,039	74,549	12.9	152	18.1
Dayton, Ohio	152,559	200,982	210,718	243,872	15.7	44	25.0
Dearborn, Mich.	2,470	50,358	63,584	94,994	49.4	117	25.3
Decatur, Ill.	43,818	57,510	59,305	66,269	11.7	177	9.3
Denver, Colo.	256,491	287,861	322,412	415,786	29.0	24	66.8
Des Moines, Iowa	126,468	142,559	159,819	177,965	11.4	53	54.9
Detroit, Mich.	993,678	1,568,662	1,623,452	1,849,568	13.9	5	139.6
Duluth, Minn.	98,917	101,463	101,065	104,511	3.4	102	62.3
Durham, N. C.	21,719	52,037	60,195	71,311	18.5	166	13.2
East Chicago, Ind.	35,967	54,784	54,637	54,263	-0.7	213	10.4

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area, sq. mi.*
East Orange, N. J.	50,710	68,020	68,945	79,340	15.1	143	3.9
East St. Louis, Ill.	66,767	74,347	75,609	82,295	8.8	135	13.4
El Paso, Tex.	77,560	102,421	96,810	130,485	34.8	75	25.6
Elizabeth, N. J.	95,783	114,589	109,912	112,817	2.6	91	11.7
Erie, Pa.	93,372	115,967	116,955	130,803	11.8	74	18.8
Evanson, Ill.	37,234	63,338	65,389	73,641	12.6	158	8.2
Evansville, Ind.	85,264	102,249	97,062	128,636	32.5	78	18.0
Fall River, Mass.	120,485	115,274	115,428	111,963	-3.0	92	33.9
Flint, Mich.	91,599	156,492	151,543	163,143	7.7	60	29.3
Fort Wayne, Ind.	86,549	114,946	118,410	133,607	12.8	71	18.8
Fort Worth, Tex.	106,482	163,447	177,662	278,778	56.9	38	93.7
Fresno, Calif.	45,086	52,513	60,685	91,669	51.1	124	15.0
Gadsden, Ala.	14,737	24,042	36,975	55,725	50.7	207	27.2
Galveston, Tex.	44,255	52,938	60,862	66,568	9.4	175	8.1
Gary Ind.	55,378	100,426	111,719	133,911	19.9	70	41.6
Glendale, Calif.	13,536	62,736	82,582	95,702	15.9	115	20.3
Grand Rapids, Mich.	137,634	168,592	164,292	176,515	7.4	55	23.4
Green Bay, Wis.	31,017	37,415	46,235	52,735	14.1	216	13.9
Greensboro, N. C.	19,861	53,569	59,319	74,389	25.4	153	18.2
Greenville, S. C.	23,127	29,154	34,734	58,161	67.4	201	16.2
Hamilton, Ohio	39,675	52,176	50,592	57,951	14.5	202	7.6
Hammond, Ind.	36,004	64,560	70,184	87,594	24.8	128	23.5
Harrisburg, Pa.	75,917	80,339	83,893	89,544	6.7	126	6.3
Hartford, Conn.	138,036	164,072	166,267	177,397	6.7	54	17.4
Hoboken, N. J.	68,166	59,261	50,115	50,676	1.1	229	1.0
Holyoke, Mass.	60,203	56,537	53,750	54,661	1.7	211	21.0
Houston, Tex.	138,276	292,352	384,514	596,163	55.0	14	160.0
Huntington, W. Va.	50,177	75,572	78,836	86,353	9.5	130	14.0
Indianapolis, Ind.	314,194	364,161	386,972	427,173	10.4	23	55.2
Irrvington, N. J.	25,480	56,733	55,328	59,201	7.0	197	3.1
Jackson, Mich.	48,374	55,187	49,656	51,088	2.9	228	10.2
Jackson, Miss.	22,817	48,282	62,107	98,271	58.2	110	27.0
Jacksonville, Fla.	91,558	129,549	173,065	204,517	18.2	49	30.2
Jersey City, N. J.	298,103	316,715	301,173	299,017	-0.7	37	13.0
Johnstown, Pa.	67,327	66,993	66,668	63,232	-5.2	189	5.6
Joliet, Ill.	38,442	42,993	42,365	51,601	21.8	222	7.7
Kalamazoo, Mich.	48,487	54,786	54,097	57,704	6.7	203	8.8
Kansas City, Kans.	101,177	121,857	121,458	129,553	6.7	76	18.7
Kansas City, Mo.	324,410	399,746	399,178	456,622	14.4	20	80.6
Kenosha, Wis.	40,472	50,262	48,765	54,368	11.5	212	7.6
Knoxville, Tenn.	77,818	105,802	111,580	124,769	11.8	83	25.4
Lakewood, Ohio	41,732	70,509	69,160	68,071	-1.6	171	5.6
Lancaster, Pa.	53,150	59,949	61,345	63,774	4.0	186	4.3
Lansing, Mich.	57,327	78,397	78,753	92,129	17.0	121	14.1
Laredo, Tex.	22,710	32,618	39,274	51,910	32.2	221	13.5
Lawrence, Mass.	94,270	85,068	84,323	80,536	-4.5	140	6.7
Lexington, Ky.	41,534	45,736	49,304	55,534	12.6	209	5.7
Lima, Ohio	41,326	42,287	44,711	50,246	12.4	231	7.7
Lincoln, Nebr.	54,948	75,933	81,984	98,884	20.6	109	23.8
Little Rock, Ark.	65,142	81,679	88,039	102,213	16.1	105	21.0
Long Beach, Calif.	55,593	142,032	164,271	250,767	52.7	41	34.7
Lorain, Ohio	37,295	44,512	44,125	51,202	16.0	226	11.0
Los Angeles, Calif.	576,673	1,238,048	1,504,277	1,970,358	31.0	4	450.9
Louisville, Ky.	234,891	307,745	319,077	369,129	15.7	30	39.9
Lowell, Mass.	112,759	100,234	101,389	97,249	-4.1	111	12.9
Lubbock, Tex.	4,051	20,520	31,853	71,747	125.2	163	17.0
Lynn, Mass.	99,148	102,320	98,123	99,738	1.6	107	10.4
McKeesport, Pa.	46,781	54,632	55,355	51,502	-7.0	223	3.5
Macon, Ga.	52,995	53,829	57,865	70,252	21.4	169	12.0
Madison, Wis.	38,378	57,899	67,447	96,056	42.4	114	15.4
Malden, Mass.	49,103	58,036	58,010	59,804	3.1	195	4.8
Manchester, N. H.	78,384	76,834	77,685	82,732	6.5	134	32.1
Medford, Mass.	39,038	59,714	63,083	66,113	4.8	178	8.1
Memphis, Tenn.	162,351	253,143	292,942	396,000	35.2	26	104.2
Miami, Fla.	29,571	110,637	172,172	249,276	44.2	42	34.2
Milwaukee, Wis.	457,147	578,249	587,472	637,392	8.5	13	50.0
Minneapolis, Minn.	380,582	464,356	492,370	521,718	6.0	17	53.8
Mobile, Ala.	60,777	68,202	78,720	129,009	63.9	77	25.4
Montgomery, Ala.	43,464	66,079	78,084	106,525	36.4	100	26.1
Mount Vernon, N. Y.	42,726	61,499	67,362	71,899	6.7	162	4.1

City	1920 population	1930 population	1940 population	1950 population	% increase, 1940-50	1950 rank	Area, sq. mi.*
Muncie, Ind.	36,524	46,548	49,720	58,479	17.6	200	10.0
Nashville, Tenn.	118,342	153,866	167,402	174,307	4.1	56	22.0
New Bedford, Mass.	121,217	112,597	110,341	109,189	-1.0	96	19.1
New Britain, Conn.	59,316	68,128	68,685	73,726	7.3	156	13.7
New Haven, Conn.	162,537	162,655	160,605	164,443	2.4	59	17.9
New Orleans, La.	387,219	458,762	494,537	570,445	15.3	16	199.4
New Rochelle, N. Y.	36,213	54,000	58,408	59,725	2.3	196	9.9
New York, N. Y.	5,620,048	6,930,446	7,454,995	7,891,957	5.9	1	315.1
Bronx borough	732,016	1,265,258	1,394,711	1,451,277	4.1	....	43.4
Brooklyn borough	2,018,356	2,560,401	2,698,285	2,738,175	1.5	....	76.1
Manhattan borough	2,284,103	1,867,312	1,889,924	1,960,101	3.7	....	22.3
Queens borough	469,042	1,079,129	1,297,634	1,550,849	19.5	....	113.0
Richmond borough	116,531	158,346	174,441	191,555	9.8	....	60.3
Newark, N. J.	414,524	442,337	429,760	438,776	2.1	21	23.6
Newton, Mass.	46,054	65,276	69,873	81,994	17.3	136	17.3
Niagara Falls, N. Y.	50,760	75,460	78,029	90,872	16.5	125	12.7
Norfolk, Va.	115,777	129,710	144,332	213,513	47.9	48	28.2
Oak Park, Ill.	39,858	63,982	66,015	63,529	-3.8	188	4.7
Oakland, Calif.	216,261	284,063	302,163	384,575	27.3	27	53.0
Ogden, Utah	32,804	40,272	43,688	57,112	30.7	206	16.6
Oklahoma City, Okla.	91,295	185,389	204,424	243,504	19.1	45	50.8
Omaha, Nebr.	191,601	214,006	223,844	251,117	12.2	40	40.7
Orlando, Fla.	9,282	27,330	36,736	52,367	42.5	219	14.1
Pasadena, Calif.	45,354	76,086	81,864	104,577	27.7	101	21.3
Passaic, N. J.	63,841	62,959	61,394	57,702	-6.0	204	3.1
Patterson, N. J.	135,875	138,513	139,656	139,336	-0.2	66	8.1
Pawtucket, R. I.	64,248	77,149	75,797	81,436	7.4	138	8.6
Peoria, Ill.	76,121	104,969	105,087	111,856	6.4	93	12.9
Philadelphia, Pa.	1,823,779	1,950,961	1,931,334	2,071,605	7.3	3	127.2
Phoenix, Ariz.	29,053	48,118	65,414	106,818	63.3	98	17.1
Pittsburgh, Pa.	588,343	669,817	671,659	676,806	0.8	12	54.2
Pittsfield, Mass.	41,763	49,677	49,684	53,348	7.4	214	40.9
Pontiac, Mich.	34,273	64,928	66,626	73,681	10.6	157	19.8
Port Arthur, Tex.	22,251	50,902	46,140	57,530	24.7	205	12.2
Portland, Maine	69,272	70,810	73,643	77,634	5.4	148	21.6
Portland, Oreg.	258,288	301,815	305,394	373,628	22.3	29	64.1
Portsmouth, Va.	54,387	45,704	50,745	80,039	57.7	141	10.2
Providence, R. I.	237,595	252,981	253,504	248,674	-1.9	43	17.9
Pueblo, Colo.	43,050	50,096	52,162	63,685	22.1	187	10.6
Quincy, Mass.	47,876	71,983	75,810	83,835	10.6	133	16.8
Racine, Wis.	58,593	67,542	67,195	71,193	5.9	167	9.2
Raleigh, N. C.	24,418	37,379	46,897	65,679	40.0	180	11.0
Reading, Pa.	107,784	111,171	110,568	109,320	-1.1	95	8.8
Richmond, Calif.	16,843	20,093	23,642	99,545	321.1	108	14.5
Richmond, Va.	171,667	182,929	193,042	230,310	19.3	46	37.1
Roanoke, Va.	50,842	69,206	69,287	91,921	32.7	122	26.5
Rochester, N. Y.	295,750	328,132	324,975	332,488	2.3	32	36.0
Rockford, Ill.	65,651	85,864	84,637	92,927	9.8	119	14.0
Sacramento, Calif.	65,908	93,750	105,958	137,572	29.8	67	16.9
Saginaw, Mich.	61,903	80,715	82,794	92,918	12.2	120	16.6
St. Joseph, Mo.	77,939	80,935	75,711	78,588	3.8	145	14.1
St. Louis, Mo.	772,897	821,960	816,048	856,796	5.0	8	61.0
St. Paul, Minn.	234,698	271,606	287,736	311,349	8.2	35	52.2
St. Petersburg, Fla.	14,237	40,425	60,812	96,738	59.1	113	52.2
Salt Lake City, Utah	118,110	140,267	149,934	182,121	21.5	52	53.9
San Angelo, Tex.	10,050	25,308	25,802	52,093	101.9	220	28.8
San Antonio, Tex.	161,379	231,542	253,854	408,442	60.9	25	69.5
San Bernardino, Calif.	18,721	37,481	43,646	63,058	44.5	190	19.5
San Diego, Calif.	74,361	147,995	203,341	334,387	64.4	31	99.4
San Francisco, Calif.	506,676	634,394	634,536	775,357	22.2	11	44.6
San Jose, Calif.	39,642	57,651	68,457	95,280	39.2	116	17.0
Santa Monica, Calif.	15,252	37,146	53,500	71,595	33.8	164	8.0
Savannah, Ga.	83,252	85,024	95,996	119,638	24.6	87	14.6
Schenectady, N. Y.	88,723	95,692	87,549	91,785	4.8	123	10.2
Scranton, Pa.	137,783	143,433	140,404	125,536	-10.6	82	24.9
Seattle, Wash.	315,312	365,583	368,302	467,591	27.0	19	70.8
Shreveport, La.	43,874	76,655	98,167	127,206	29.6	80	24.0
Sioux City, Iowa	71,227	79,183	82,364	83,991	2.0	132	45.0
Sioux Falls, S. Dak.	25,202	33,362	40,832	52,696	29.1	217	12.7
Somerville, Mass.	93,091	103,908	102,177	102,351	0.2	104	4.1

City	1920 population	1930 population	1940 1940 50	1950 population	% increase, population	1950 rank	Area, sq. mi.*
South Bend, Ind.	70,983	104,193	101,268	115,911	14.5	89	20.2
South Gate, Calif.		19,632	26,945	51,116	89.7	227	7.0
Spokane, Wash.	104,437	115,514	122,001	161,721	32.6	62	41.5
Springfield, Ill.	59,183	71,864	75,503	81,628	8.1	137	10.4
Springfield, Mass.	129,614	149,900	149,554	162,399	8.6	61	31.7
Springfield, Mo.	39,631	57,527	61,238	66,731	9.0	174	13.6
Springfield, Ohio	60,840	68,743	70,662	78,508	11.1	147	12.1
Stamford, Conn.	35,096	46,346	47,938	74,293	55.0	154	37.6
Stockton, Calif.	40,296	47,963	54,714	70,853	29.5	168	11.8
Syracuse, N. Y.	171,717	209,326	205,967	220,583	7.1	47	25.3
Tacoma, Wash.	96,965	106,817	109,408	143,673	31.3	65	47.9
Tampa, Fla.	51,608	101,161	108,391	124,681	15.0	84	19.0
Terre Haute, Ind.	66,083	62,810	62,693	64,214	2.4	185	12.2
Toledo, Ohio	243,164	290,718	282,349	303,616	7.5	36	38.3
Topeka, Kans.	50,022	64,120	67,833	78,791	16.2	144	12.5
Trenton, N. J.	119,289	123,356	124,697	128,009	2.7	79	7.2
Troy, N. Y.	71,996	72,763	70,304	72,311	2.9	160	9.3
Tulsa, Okla.	72,075	141,258	142,157	182,740	28.5	51	26.7
Union City, N. J.	20,651	58,659	56,173	55,537	-1.1	208	1.3
Utica, N. Y.	94,156	101,740	100,518	101,531	1.0	106	15.8
Waco, Tex.	38,500	52,848	55,982	84,706	51.3	131	26.0
Washington, D. C.	437,571	486,869	663,091	802,178	21.0	9	61.4
Waterbury, Conn.	91,715	99,902	99,314	104,477	5.2	103	27.6
Waterloo, Iowa	36,230	46,191	51,743	65,198	26.0	181	31.3
Wheeling, W. Va.	56,208	61,659	61,099	58,891	-3.6	199	10.4
Wichita, Kans.	72,217	111,110	114,966	168,279	46.4	58	25.7
Wichita Falls, Tex.	40,079	43,690	45,112	68,042	50.8	172	14.1
Wilkes-Barre, Pa.	73,833	86,626	86,236	76,826	-10.9	151	6.9
Wilmington, Del.	110,168	106,597	112,504	110,356	-1.9	94	9.8
Winston-Salem, N. C.	48,395	75,274	79,815	87,811	10.0	127	18.8
Woonsocket, R. I.	49,496	49,376	49,303	50,211	1.8	232	8.6
Worcester, Mass.	179,754	195,311	193,694	203,486	5.1	50	37.0
Yonkers, N. Y.	100,176	134,646	142,598	152,798	7.2	64	17.2
York, Pa.	47,512	55,254	56,712	59,953	5.7	194	4.2
Youngstown, Ohio	132,358	170,002	167,720	168,330	0.4	57	32.8

* Land area as of April 1, 1950. NOTE: Increase in population from census to census includes that due to annexation of territory as well as to direct growth.

Territorial Expansion of the United States

Source: U. S. Bureau of the Census.

Accession	Date	Area, sq. mi. ¹	Area, sq. mi. ¹
Virgin Islands of U. S.	1917		133
Trust territory	1947		8,475
Total			605,743
Aggregate, 1950			3,628,130

¹ Total land and water area. ² Leased from Nicaragua for 99 years. ³ Became state in 1958.

Population of Possessions

Source: U. S. Bureau of the Census.

CONTINENTAL UNITED STATES		
Territory in 1790		888,811
Louisiana Purchase	1803	827,192
Florida	1819	58,560
By treaty with Spain	1819	13,443
Texas	1845	390,144
Oregon	1846	285,580
Mexican Cession	1848	529,017
Gadsden Purchase	1853	29,640
Total		3,022,387

OUTLYING TERRITORY

Alaska Territory ³	1867	586,400
Hawaii Territory	1898	6,461
Puerto Rico	1899	3,435
Guam	1899	206
American Samoa	1900	76
Panama Canal Zone	1904	553
Corn Islands ²	1914	4

Area	1930	1940	1950
United States	122,775,046	131,669,275	150,697,361
Alaska ¹	59,278	72,524	128,643
American Samoa	10,055	12,908	18,937
Canal Zone	39,467	51,827	52,822
Guam	18,509	22,290	59,498
Hawaii	368,336	423,330	499,794
Philippines	13,513,000	16,356,000	
Puerto Rico	1,543,913	1,869,255	2,210,703
Virgin Is. of U. S.	22,012	24,889	26,665
Total	138,349,616	150,502,298	153,694,423

¹ Became state in 1958.

The Working Population of the U. S., 1820-1950

Source: U. S. Bureau of the Census.

Year	Working population		Percent of working population in		Year	Working population		Percent of working population in	
	Number (thousands)	Percent of total population ages 10 and over*	Farm occupation	Nonfarm occupation		Number (thousands)	Percent of total population ages 10 and over*	Farm occupation	Nonfarm occupation
1820.....	2,881	44.4	71.8	28.2	1890.....	23,318	49.2	42.6	57.4
1830.....	3,932	45.5	70.5	29.5	1900.....	29,073	50.2	37.5	62.5
1840.....	5,420	46.6	68.6	31.4	1910.....	37,371	52.2	31.0	69.0
1850.....	7,697	46.8	63.7	36.3	1920.....	42,434	51.3	27.0	73.0
1860.....	10,533	47.0	58.9	41.1	1930.....	48,830	49.5	21.4	78.6
1870.....	12,925	44.4	53.0	47.0	1940.....	52,789	52.2	16.1	83.9
1880.....	17,392	47.3	49.4	50.6	1950.....	60,054	53.5	11.6	88.4

* For 1820 to 1930, the data relate to the population and gainful workers at ages 10 and over. For 1940 and 1950, the data relate to the population and labor force at ages 14 and over; the farm and nonfarm percentages relate only to the experienced labor force.

Experienced Civilian Labor Force, 1950 in Thousands

Source: U. S. Department of Commerce.

Total, 14 years & over.....	58,999	Farmers & farm managers.....	4,321
Professional, technical & kindred workers.....	4,988	Managers, officials & proprietors, excl. farm.....	5,076
Accountants & auditors.....	383	Clerical & kindred workers.....	7,070
Actors & actresses.....	18	Bookkeepers.....	736
Airplane pilots & navigators.....	14	Cashiers.....	234
Architects.....	25	Stenographers, typists & secretaries.....	1,622
Artists & art teachers.....	81	Sales workers.....	4,044
Authors, editors & reporters.....	108	Insurance agents & brokers.....	307
Chemists.....	76	Sales & sales clerks.....	3,407
Chiropractors.....	13	Craftsmen, foremen & kindred workers.....	8,153
Clergymen.....	168	Carpenters.....	985
College presidents, professors, instructors.....	126	Electricians.....	324
Dancers & dancing teachers.....	17	Foremen, not elsewhere classified.....	854
Dentists.....	75	Mechanists.....	534
Draftsmen.....	125	Mechanics & repairmen.....	1,768
Engineers, technical.....	534	Painters, construction & maintenance.....	431
Lawyers & judges.....	181	Operators & kindred workers.....	11,715
Librarians.....	56	Private household workers.....	1,488
Musicians & music teachers.....	161	Service workers, except private household.....	4,512
Nurses, professional.....	404	Barbers, beauticians & machinists.....	389
Optometrists.....	15	Bartenders.....	208
Osteopaths.....	5	Boarding & lodging house keepers.....	29
Pharmacists.....	89	Charwomen & cleaners.....	124
Photographers.....	55	Cooks, except private household.....	463
Physicians & surgeons.....	192	Elevator operators.....	94
Radio operators.....	16	Practical nurses.....	144
Religious workers.....	42	Waiters & waitresses.....	713
Social & welfare workers, except group.....	76	Farm laborers & foremen.....	2,515
Surveyors.....	28	Laborers, except farm & mine.....	3,751
Veterinarians.....	13	Occupation not reported.....	1,366

Indian Population Residing on Reservations Under Agency Control

(Top 16 agencies by population, 1950)

Source: Bureau of Indian Affairs.

Five Civilized Tribes Agency (Okla.).....	37,382	Pima Agency (Ariz.).....	5,918
Navajo Agency & Reservation (Ariz.).....	32,838	Rosebud Agency (S. Dak.).....	5,698
Navajo Agency & Reservation (N. Mex.).....	20,714	Turtle Mountain Agency (N. Dak.).....	4,546
Southern Plains Agency (Okla.).....	14,841	Papago Agency (Ariz.).....	4,468
United Pueblo Agency (N. Mex.).....	12,935	Hope Agency & Reservation (Ariz.).....	4,011
California Agency (Calif.).....	10,000	Great Lakes Agency (Wis.).....	3,916
Pine Ridge Agency & Reservation (S. Dak.).....	6,636	Blackfeet Agency & Reservation (Mont.).....	3,546
Consolidated Chippewa Agency (Minn.).....	6,376	San Carlos Agency & Reservation (Ariz.).....	3,136

Women in the Working Population of the U. S., 1870-1950

Source: U. S. Bureau of the Census.

Year	Working women*		
	Number (thousands)	Percent of female population ages 10 and over*	Percent of total working population ages 10 and over*
1870.....	1,917	13.3	14.8
1880.....	2,547	14.7	15.2
1890.....	4,006	17.4	17.2
1900.....	5,319	18.8	18.3
1910.....	7,445	21.5	19.9
1920.....	8,637	21.4	20.4
1930.....	10,752	22.0	22.0
1940.....	12,845	25.4	24.3
1950.....	16,501	28.9	27.5

* For 1870 to 1930, the data relate to the population and gainful workers at ages 10 and over; for 1940 and 1950, the data relate to the population and labor force at ages 14 and over.

Percent Unemployed in the Civilian Labor Force, 1929-57

Source: U. S. Bureau of the Census.

Year	Percent unemployed	Year	Percent unemployed
1929.....	3.2	1943.....	1.9
1930.....	8.7	1944.....	1.2
1931.....	15.9	1946.....	3.9
1932.....	23.6	1947.....	3.6
1933.....	24.9	1948.....	3.4
1934.....	21.7	1949.....	5.5
1935.....	20.1	1950.....	5.0
1936.....	16.9	1951.....	3.0
1937.....	14.3	1952.....	2.7
1938.....	19.0	1953.....	2.5
1939.....	17.2	1954.....	5.0
1940.....	14.6	1955.....	4.0
1941.....	9.9	1956.....	3.8
1942.....	4.7	1957.....	4.3

NOTE: These estimates are derived from sample surveys and are subject to sampling variations.

MARRIAGE AND DIVORCE

Marriages and Divorces in the United States, 1890-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Marriage		Divorce ²		Year	Marriage		Divorce ²	
	Number	Rate ¹	Number	Rate ¹		Number	Rate ¹	Number	Rate ¹
1890.....	570,000	9.0	33,461	.5	1930.....	1,126,856	9.2	195,961	1.6
1895.....	620,000	8.9	40,387	.6	1931.....	1,060,914	8.6	188,003	1.5
1900.....	709,000	9.3	55,751	.7	1932.....	981,903	7.9	164,241	1.3
1905.....	842,000	10.0	67,976	.8	1933.....	1,098,000	8.7	165,000	1.3
1906.....	895,000	10.5	72,062	.8	1934.....	1,302,000	10.3	204,000	1.6
1907.....	936,936	10.8	76,571	.9	1935.....	1,327,000	10.4	218,000	1.7
1908.....	857,461	9.7	76,852	.9	1936.....	1,369,000	10.7	236,000	1.8
1909.....	897,354	9.9	79,671	.9	1937.....	1,451,296	11.3	249,000	1.9
1910.....	948,166	10.3	83,045	.9	1938.....	1,330,780	10.3	244,000	1.9
1911.....	955,287	10.2	89,219	1.0	1939.....	1,403,633	10.7	251,000	1.9
1912.....	1,004,602	10.5	94,318	1.0	1940.....	1,595,879	12.1	264,000	2.0
1913.....	1,021,398	10.5	91,307	.9	1941.....	1,695,999	12.7	293,000	2.2
1914.....	1,025,092	10.3	100,584	1.0	1942.....	1,772,132	13.2	321,000	2.4
1915.....	1,007,595	10.0	104,298	1.0	1943.....	1,577,050	11.7	359,000	2.6
1916.....	1,075,775	10.6	114,000	1.1	1944.....	1,452,394	10.9	400,000	2.9
1917.....	1,144,200	11.1	121,564	1.2	1945.....	1,612,992	12.2	485,000	3.5
1918.....	1,000,109	9.7	116,254	1.1	1946.....	2,291,045	16.4	610,000	4.3
1919.....	1,150,186	11.0	141,527	1.3	1947.....	1,991,878	13.9	483,000	3.4
1920.....	1,274,476	12.0	170,505	1.6	1948.....	1,811,155	12.4	408,000	2.8
1921.....	1,163,863	10.7	159,580	1.5	1949.....	1,579,798	10.6	397,000	2.7
1922.....	1,134,151	10.3	148,815	1.4	1950.....	1,667,231	11.1	385,144	2.6
1923.....	1,229,784	11.0	165,096	1.5	1951.....	1,594,694	10.4	381,000	2.5
1924.....	1,184,574	10.4	170,952	1.5	1952.....	1,539,318	9.9	392,000	2.5
1925.....	1,188,334	10.3	175,449	1.5	1953.....	1,546,000	9.8	390,000	2.5
1926.....	1,202,574	10.2	184,678	1.6	1954.....	1,490,000	9.2	379,000	2.4
1927.....	1,201,053	10.1	196,292	1.6	1955.....	1,531,000	9.3	377,000	2.3
1928.....	1,182,497	9.8	200,176	1.7	1956.....	1,585,000	9.5	382,000	2.3
1929.....	1,232,559	10.1	205,876	1.7	1957 ³	1,516,000	8.9	.....	.....

¹ Per 1,000 population. Divorce rates for 1917-19 and 1941-46 are based on population including armed forces overseas; for 1940 and 1947-52, on population excluding armed forces overseas. Marriage rates for 1917-19 and 1940-57 are based on population excluding armed forces overseas. ² Includes annulments. ³ Provisional. NOTE: Figures for marriages for all years include partial or complete estimates for some states; figures for divorces are estimated, except for 1900, 1905 and 1922-32. Leaders (....) indicate data not available.

Marital Status of the Population, 1950

Source: U. S. Bureau of the Census.

State and Census division	Males				Females			
	Population 14 yrs. old & over	% distribution*			Population 14 yrs. old & over	% distribution*		
		Single	Married	Widowed or divorced		Single	Married	Widowed or divorced
Alabama.....	1,024,915	26.03	69.10	4.87	1,093,798	19.51	66.21	14.28
Alaska†.....	62,758	43.4	48.4	8.1	33,223	16.8	73.6	9.3
Arizona.....	263,546	25.84	67.38	6.78	259,511	18.36	68.05	13.59
Arkansas.....	659,656	24.09	69.76	6.15	675,397	16.84	68.74	14.45
California.....	4,034,180	24.37	68.25	7.38	4,073,341	15.88	67.00	17.12
Colorado.....	489,263	25.76	67.60	6.64	490,550	18.23	67.03	14.74
Connecticut.....	756,080	27.34	66.89	5.77	797,537	23.28	63.74	12.98
Delaware.....	117,542	25.45	68.52	6.03	122,763	20.46	65.96	13.58
D. C.....	301,111	29.58	64.01	6.41	347,872	26.99	56.71	17.30
Florida.....	1,018,121	22.69	70.53	6.78	1,065,169	15.37	67.86	16.77
Georgia.....	1,168,086	26.29	68.86	4.85	1,247,615	18.84	66.03	15.13
Idaho.....	213,170	25.26	68.33	6.41	198,781	16.10	72.69	11.21
Illinois.....	3,309,125	25.56	67.73	6.71	3,418,775	19.74	65.57	14.69
Indiana.....	1,448,831	23.12	70.03	6.85	1,486,515	17.53	68.10	14.37
Iowa.....	968,920	25.55	68.17	6.28	985,169	19.54	66.95	13.51
Kansas.....	712,198	24.44	69.26	6.30	720,732	17.72	68.10	14.18
Kentucky.....	1,039,654	27.16	66.95	5.89	1,048,459	19.96	66.32	13.72
Louisiana.....	914,015	25.86	68.93	5.21	968,553	19.14	66.43	14.43
Maine.....	331,780	27.03	65.50	7.47	342,686	21.67	63.57	14.76
Maryland.....	863,852	26.31	68.01	5.68	884,036	20.09	66.40	13.51
Massachusetts.....	1,733,192	29.58	64.04	6.38	1,905,814	27.01	58.64	14.35
Michigan.....	2,368,024	25.13	68.41	6.46	2,349,955	18.74	68.55	12.71
Minnesota.....	1,101,812	29.56	64.79	5.65	1,099,128	22.73	64.85	12.42
Mississippi.....	723,522	26.45	68.55	5.00	757,568	18.71	67.27	14.02
Missouri.....	1,466,440	23.74	69.24	7.02	1,556,891	18.64	65.64	15.72
Montana.....	227,271	28.98	63.45	7.57	202,470	17.13	69.98	12.89
Nebraska.....	498,732	26.94	67.02	6.04	497,059	19.87	67.05	13.08
Nevada.....	64,807	25.18	65.45	9.37	55,791	12.94	72.64	14.42
New Hampshire.....	197,099	26.90	65.67	7.43	207,945	22.53	62.57	14.90
New Jersey.....	1,838,965	26.34	68.08	5.58	1,931,114	21.35	65.19	13.46
New Mexico.....	233,244	28.32	66.09	5.59	223,050	20.16	68.56	11.28
New York.....	5,616,963	27.59	66.79	5.62	6,033,574	23.15	62.89	13.96
North Carolina.....	1,390,072	29.44	66.62	3.94	1,435,312	22.54	65.39	12.07
North Dakota.....	230,502	34.70	60.51	4.79	207,649	23.10	66.68	10.22
Ohio.....	2,935,808	23.52	69.45	7.03	3,060,868	19.07	66.48	14.45
Oklahoma.....	808,460	23.87	69.51	6.62	822,794	16.13	68.34	15.53
Oregon.....	576,808	22.86	69.60	7.54	561,087	15.14	70.82	14.04
Pennsylvania.....	3,904,893	27.64	66.18	6.18	4,108,599	23.29	63.38	13.33
Rhode Island.....	300,768	30.12	63.87	6.01	319,531	25.40	60.99	13.61
South Carolina.....	688,217	29.53	66.67	3.80	733,249	22.57	64.13	13.30
South Dakota.....	245,727	31.27	63.33	5.40	227,366	20.86	67.86	11.27
Tennessee.....	1,149,299	25.45	69.04	5.51	1,209,638	19.31	66.11	14.58
Texas.....	2,781,613	24.78	69.34	5.88	2,801,565	16.79	68.60	14.61
Utah.....	235,325	25.81	69.31	4.88	234,486	19.12	69.31	11.57
Vermont.....	136,311	28.62	64.42	6.96	141,356	22.89	62.23	14.88
Virginia.....	1,210,799	29.79	65.22	4.99	1,193,627	21.18	65.46	13.36
Washington.....	919,661	25.93	66.57	7.50	862,214	15.44	70.03	14.53
West Virginia.....	700,823	27.29	67.08	5.63	704,919	20.98	66.56	12.46
Wisconsin.....	1,278,770	27.97	65.84	6.19	1,279,013	21.77	65.72	12.51
Wyoming.....	113,645	28.98	64.35	6.67	96,526	15.52	73.30	11.18
New England.....	3,455,230	28.70	64.89	6.41	3,709,869	25.17	60.75	14.08
Middle Atlantic.....	11,360,821	27.40	66.79	5.81	12,073,287	22.91	63.43	13.66
East North Central.....	11,340,558	24.90	68.40	6.70	11,595,126	19.30	66.76	13.94
West North Central.....	5,224,331	26.54	67.23	6.23	5,293,994	19.92	66.32	13.76
South Atlantic.....	7,458,623	27.46	67.42	5.12	7,734,562	20.45	65.57	13.98
East South Central.....	3,937,390	26.23	68.42	5.35	4,109,463	19.42	66.40	14.18
West South Central.....	5,163,744	24.73	69.36	5.91	5,268,309	17.12	68.18	14.70
Mountain.....	1,840,271	26.62	66.89	6.49	1,761,165	17.93	69.17	12.90
Pacific.....	5,530,649	24.47	68.11	7.42	5,496,642	15.73	67.87	16.40
TOTAL U. S.†.....	55,311,617	26.25	67.62	6.13	57,042,417	20.08	65.75	14.17

* Total for ages 14 and over = 100%. † Alaska figures are not included in Total U. S. figures.

Marriage Information, by State

Sources: Information: Please Almanac questionnaires to states; and Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Legal minimum marriage age				Blood test required	Waiting period		Marriages ¹	
	With parental consent		Without parental consent			Before license	After license	1956	1957 ²
	M	F	M	F					
Alabama.....	17	14	21	18	yes	none	none	20,779	19,939
Alaska.....	18	16	21	8	yes	3 da.	none	1,827	1,686
Arizona.....	18	16	21	18	yes	none	none	25,631	9,695
Arkansas.....	18	16	21	18	yes	3 da.	none	13,932	13,340
California.....	18 ⁴	16 ⁴	21	18	yes	none	none	87,452	93,224
Colorado.....	16	16	21	18	yes	none	none	13,147 ¹⁷	13,831
Connecticut.....	16	16	21	21	yes	4 da.	none	18,621	18,096
Delaware.....	18	16	21	18	yes	none	24 hr. ⁵	2,343	2,262
D. C.....	18	16	21	18	no	3 da. ²⁰	none	8,178	8,043
Florida.....	18	16	21	21	yes	3 da.	none	31,793	32,665
Georgia.....	17	14	21	21	yes	5 da.	none	52,221	52,633
Idaho.....	15	15 ⁶	18	18	yes	none	none	9,132	8,997
Illinois.....	18	16	21	18	yes	none	none	86,845 ¹⁷	83,554
Indiana.....	18	16	21	18	yes	3 da.	none	74,086 ¹⁶	74,929
Iowa.....	16	14	21	18	yes	none	none	25,270	23,863
Kansas.....	18	16	21	18	yes	3 da.	none	17,619	16,050
Kentucky.....	16	14	21	21	yes	3 da.	none	22,342 ¹⁷	21,314
Louisiana.....	18 ³	16 ³	21 ³	21 ³	yes	none	72 hr. ⁷	22,499	22,006
Maine.....	16	16	21	18	yes	5 da.	none	8,176	8,283
Maryland.....	18	16	21	18	no	48 hr.	none	45,242	44,424
Massachusetts.....	18	16	21	18	yes	5 da.	none	36,499 ¹⁶	47,986
Michigan.....	18	16 ¹³	18	18	yes	3 da.	none	57,068	54,166
Minnesota.....	16	15	18	16	no	5 da.	none	24,604	24,859
Mississippi.....	17	15 ²¹	21	18	yes	3 da.	none	66,223	62,001
Missouri.....	15 ⁶	15 ⁶	21	18	yes	3 da.	none	34,382 ¹⁸	34,300
Montana.....	18	16	21	18	yes	none	none	6,770	6,500
Nebraska.....	18	16	21	21	yes	none	none	11,364	10,763
Nevada.....	18	16	21	18	no	none	none	54,915 ¹⁷	58,101
New Hampshire.....	14	13	20	18	yes	5 da.	none	7,464	7,288
New Jersey.....	18 ¹⁵	16 ¹⁵	21	18	yes	72 hr.	none	41,152	41,523
New Mexico.....	18	16	21	18	yes	none	none	21,600 ¹⁶	11,439
New York.....	16	14 ¹⁰	21	18	yes	none	(¹¹)	127,101	127,256
North Carolina.....	16	16	18	18	yes	none ⁸	none	26,354 ¹⁷	25,874
North Dakota.....	18	15	21	18	yes	none	none	4,302	4,144
Ohio.....	18	16	21	21	yes	5 da.	none	62,947	60,750
Oklahoma.....	18	15	21	18	yes	none	none	29,965 ¹⁶	30,581
Oregon.....	18	15	21	18	yes	3 da. ¹⁹	none	10,568	10,001
Pennsylvania.....	16 ¹²	16 ¹²	21	21	yes	3 da.	none	77,682	76,629
Rhode Island.....	18	16	21	21	yes	5 da.	none	6,325	5,860
South Carolina.....	18	14	18	18	no	24 hr.	none	48,996	39,886
South Dakota.....	18	15	21	18	yes	none	none	6,129	5,742
Tennessee.....	16	16	21	21	yes	3 da. ⁹	none	24,089	23,327
Texas.....	16	14	21	18	yes	none	none	90,344	88,644
Utah.....	16	14	21	18	yes	none	none	6,657	6,666
Vermont.....	18	16	21	18	yes	none	5 da.	3,420	3,202
Virginia.....	18	16	21	21	yes	none	none	38,284	37,391
Washington.....	15	15	21	18	no	3 da.	none	30,113 ¹⁷	28,493
West Virginia.....	18	16	21	21	yes	3 da.	none	14,169	14,842
Wisconsin.....	18 ¹⁴	15	21	18	yes	5 da.	none	26,833	25,636
Wyoming.....	18	16	21	21	yes	none	none	3,199	2,793

¹ By place of occurrence. ² Provisional figures. Data represent marriages reported for 22 states, marriage intentions filed for 1 state, and marriage licenses issued for remaining states. ³ Marriages, otherwise valid, between persons below minimum ages (who have reached puberty) will be legal. ⁴ Males under 18 and females under 16 may be married with consent of parents, provided Superior Court gives its permission. ⁵ 96 hr. if nonresidents. ⁶ If under 15, order must be obtained from Circuit or Probate Court. ⁷ Unless certificate signed by district judge is procured. ⁸ Except in Pamlico County, 48 hr. ⁹ Except by court order or known by judge to be over 21. ¹⁰ Females 14-16 years old must have consent of Judge of Children's Court. ¹¹ Marriage may not be solemnized within 3 days from date on which specimen was taken for serological test, and not until 24 hr. after issuance of marriage license. ¹² Orphans' Court may approve issuance of license to one younger than 16 years. ¹³ Consent of 1 parent or guardian necessary for female only. ¹⁴ County judge may give written permission to marry to male under 18 in order to prevent child fathered by applicant from being born out of wedlock. ¹⁵ If male is under 18 or female under 16, consent required must be approved in writing by any judge of the county court or of the county court of juvenile and domestic relations. ¹⁶ Estimated. ¹⁷ Marriage licenses. ¹⁸ Incomplete. ¹⁹ Unless judge of probate of county authorizes county clerk to issue license sooner. ²⁰ Day of application and day of pickup are not included in 3-day waiting period. ²¹ For cogent reasons, Circuit, Chancery or County Judges may waive minimum age.

Divorce Information, by State

Sources: Information Please Almanac questionnaires to states; and Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Residence for divorce	Period before parties may remarry		Divorces ¹	
		Plaintiff	Defendant	1955 ²	1956 ²
Alabama.....	1 yr. ²³	60 da. ³	60 da. ³	9,721	10,469
Alaska.....	2 yr.	none	none	534	546
Arizona.....	1 yr.	1 yr.	1 yr.	3,526	5,571
Arkansas.....	90 da.	none	none	5,113 ⁵	4,973
California.....	1 yr. ²¹	1 yr.	1 yr.	41,599	42,471
Colorado.....	1 yr.	none	none	4,900 ⁷	5,800 ⁷
Connecticut.....	3 yr.	none	none	2,705	2,617
Delaware.....	2 yr.	none	none	509	598
D. C.....	1 yr. ⁸	6 mo.	6 mo.	1,085	1,092
Florida.....	6 mo.	none	none	19,999	20,238
Georgia.....	1 yr.	30 da.	30 da.	7,547 ⁵	7,751 ⁵
Idaho.....	6 wk.	none	none	2,414	2,214
Illinois.....	1 yr.	none	none	.....	.....
Indiana.....	1 yr.	none	none	11,317 ⁷	12,026 ⁷
Iowa.....	1 yr.	1 yr. ¹⁸	1 yr. ¹⁸	5,195	4,850
Kansas.....	1 yr.	6 mo.	6 mo.	5,101	4,899
Kentucky.....	1 yr.	none	none	.....	.....
Louisiana.....	1 yr.	none ⁸	none ⁸	.....	.....
Maine.....	6 mo.	none	none	1,960	1,926
Maryland.....	1 yr.	none	none	5,521	5,490
Massachusetts.....	5 yr.	6 mo.	2 yr.	5,699	.....
Michigan.....	1 yr.	(⁹)	(⁹)	17,676 ⁵	16,228
Minnesota.....	1 yr.	6 mo.	6 mo.	3,804	3,948
Mississippi.....	1 yr.	(¹⁰)	(¹⁰)	4,845	5,027
Missouri.....	1 yr. ²⁴	none	none	11,351 ⁵	10,993 ⁵
Montana.....	1 yr.	none	none	1,909	1,985
Nebraska.....	1 yr.	6 mo.	6 mo.	2,424	2,284
Nevada.....	6 wk.	none	none	9,559	9,141
New Hampshire.....	1 yr.	none	none	1,076	1,059
New Jersey.....	2 yr.	none ²²	none ²²	4,844	4,891
New Mexico.....	1 yr. ²⁰	none	none	2,140 ⁷	2,337 ⁷
New York.....	(¹¹)	none	3 yr. ¹²	.....	.....
North Carolina.....	2 yr.	none	none	.....	.....
North Dakota.....	1 yr.	(⁴)	(⁴)	543	488
Ohio.....	1 yr.	none	none	22,599	21,344
Oklahoma.....	6 mo.	6 mo.	6 mo.	12,521 ⁵	12,439 ⁷
Oregon.....	1 yr. ²⁵	6 mo.	6 mo.	6,158	5,827
Pennsylvania.....	1 yr.	none	none	11,160	11,533
Rhode Island.....	2 yr.	none	none	827	913
South Carolina.....	1 yr.	none	none	3,055 ⁵	2,731
South Dakota.....	1 yr.	none	none ¹⁴	868	850
Tennessee.....	1 yr.	none	none ¹³	8,342	8,410
Texas.....	1 yr.	1 yr. ¹⁹	1 yr. ¹⁹	34,921 ⁵	33,831 ⁵
Utah.....	3 mo.	3 mo. ²²	3 mo. ²²	2,060	2,217
Vermont.....	1 yr.	none	2 yr. ¹⁶	533	527
Virginia.....	1 yr.	4 mo.	4 mo.	7,116	7,133
Washington.....	1 yr.	none	none	8,787 ⁷	8,641 ⁷
West Virginia.....	1 yr. ¹⁶	60 da. ¹⁷	60 da. ¹⁷	.....	.....
Wisconsin.....	2 yr.	1 yr.	1 yr.	4,720	4,488
Wyoming.....	60 da.	none	none	1,127	1,145 ⁶

¹ Include reported annulments. ² Leaders (...) indicate data unavailable. ³ Divorced persons may remarry each other at any time. ⁴ At discretion of court. ⁵ Incomplete. ⁶ 2 yr. if cause for divorce occurred outside D. C. ⁷ Estimated. ⁸ For husband; 10 mo. for wife. In case of adultery, guilty party cannot marry accomplice. ⁹ At discretion of judge. ¹⁰ Until court is adjourned that grants the divorce. Court may prohibit defendant in adultery cases from remarrying. ¹¹ Action for divorce may be maintained where: (1) both parties were residents of state when offense was committed; (2) parties were married within state; (3) plaintiff was resident of state when offense was committed and is resident when action is commenced; (4) offense was committed within state and injured party is never marry the respondent. ¹² By modification of decree by court. ¹³ Party guilty of adultery may death of innocent party. ¹⁴ In case of adultery, guilty party may not marry, except to innocent party, until divorce action arose. No residence required in case of adultery if personal service can be had within state. ¹⁵ Attorney can lengthen waiting period if desired. ¹⁶ Unless otherwise set out by judge. ¹⁷ For cruelty only, but technically not usually observed. ¹⁸ Servicemen acquire residence by being continuously stationed at military base in state for 1 year. ¹⁹ Must have resided in county for 3 mo. ²⁰ 3-mo. period between first and final judgment; in Utah, 90 days between first and final judgment, during which parties must consult counseling services. ²¹ If complainant is a resident, and defendant is non-resident but within jurisdiction of court, no specific residence period is required. ²² Less until 60 days from the service of the summons and complaint upon the defendant or the first publication of the summons except in cases of emergency or necessity.

Grounds for Divorce

Source: Information Please Almanac questionnaires to the states.

State	Adultery	Cruelty	Desertion	Alcoholism	Impotence	Felony conviction	Neglect to provide	Insanity	Pregnancy at marriage	Bigamy	Separation	Indignities	Drug addiction	Violence	Fraudulent contract	Others
Alabama	yes	yes	yes ²	yes	...	yes ⁵⁰	yes ³	yes ⁴	yes	...	...	...	yes	yes	...	(5)
Alaska	yes	yes	yes	yes	yes	yes	yes	yes	...	...	...	yes	yes	...	...	(49)
Arizona	yes	yes	yes	yes	yes	yes ⁶	yes	...	yes	yes	yes ⁴	yes	yes	yes	yes	(5, 7-13)
Arkansas	yes	yes	yes ³	yes	yes	yes	yes	...	...	yes	yes ¹⁴	yes	yes	yes	yes	(12, 15, 16)
California	yes	yes ⁵³	yes	yes ⁵³	yes	yes	yes ⁵³	yes ¹⁴	...	yes	...	yes	...	yes	yes	...
Colorado	yes	yes	yes ²	yes	yes	yes	yes	yes ⁴	...	yes	yes ²	...	yes	yes	...	(7)
Connecticut	yes	yes	yes ¹⁴	yes	...	yes ¹⁸	...	yes ⁴	...	...	...	...	...	...	yes	(10, 17, 19)
Delaware	yes	yes	yes ³	yes ³	...	yes ²⁰	yes	yes ⁴	...	yes	...	...	...	...	...	(21-23, 30)
D. C.	yes	...	yes ³	...	...	yes	...	...	...	...	yes ⁴	...	...	...	...	...
Florida	yes	yes	yes ³	...	yes	...	...	...	...	yes	...	...	...	...	...	(12, 17, 24, 47)
Georgia	yes	yes	yes ²	yes	yes	yes ²⁰	...	yes	yes	...	...	...	...	...	yes	(12, 16)
Idaho	yes	yes	yes	...	...	yes	yes	yes ¹⁴	...	yes	...	...	...	...	...	(17, 31)
Illinois	yes	yes	yes ²	yes ⁸	yes	yes	...	...	...	yes	...	...	...	...	...	(10, 28, 27)
Indiana	yes	yes	yes ³	yes	yes	...	yes ³	yes ⁴	...	...	...	...	...	...	...	(10)
Iowa	yes	yes	yes ³	yes	...	yes	...	...	...	...	...	...	...	...	...	...
Kansas	yes	yes	yes ²	yes	yes	yes	...	yes ⁴	yes	yes	...	...	...	...	yes	(12, 16)
Kentucky	yes	yes	yes	yes	yes	yes	...	yes ⁴	yes	...	yes ⁴	...	...	yes	yes	(11, 28, 29)
Louisiana	yes	yes	yes	yes	...	yes	yes	...	...	...	yes ⁸	...	...	yes	yes	(26, 30)
Maine	yes	yes	yes	yes	yes	yes ¹⁸	yes	...	...	yes	...	yes	yes	...	...	(15)
Maryland	yes	yes	yes ³¹	...	yes ¹⁵	yes ²²	...	yes ¹⁴	...	...	yes ¹⁴	...	...	...	...	(38)
Massachusetts	yes	yes	yes ¹⁵	yes	yes	yes ³⁴	yes	...	...	...	...	...	yes	...	...	...
Michigan	yes	yes	yes ²	yes	yes	yes ²⁵	yes	yes	...	yes	...	...	yes	yes	yes	...
Minnesota	yes	yes	yes ²	yes ²	yes	yes	...	yes ⁴	...	...	yes ³	...	...	...	...	...
Mississippi	yes	yes	yes	yes	yes	yes	...	yes ⁵⁶	yes	yes	...	...	yes	yes	...	(7, 12, 14)
Missouri	yes	yes	yes	yes	yes	yes	...	...	yes	yes	...	yes	...	...	...	(7-10)
Montana	yes	yes	yes	...	...	yes	yes	yes	...	...	...	...	...	...	...	(17)
Nebraska	yes	yes	yes	yes	yes	yes ²⁵	yes	yes ⁴	...	...	...	...	...	...	...	...
Nevada	yes	yes	yes ²	yes	yes	yes	yes	yes ³	...	...	...	...	...	...	...	(10, 34)
New Hampshire	yes	yes	yes ¹⁴	yes ¹⁴	yes	yes ⁶	yes ¹⁴	...	...	...	...	...	...	yes	...	(15, 28, 36)
New Jersey	yes	yes	yes ³	...	...	...	...	...	...	...	...	...	...	...	...	(49)
New Mexico	yes	yes	yes	yes	yes	yes	yes	yes ⁴	yes	...	...	...	...	...	...	...
New York	yes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
North Carolina	yes	...	...	...	yes	...	...	yes ²⁷	yes	...	yes ³	...	...	...	...	(5)
North Dakota	yes	yes	yes ²	yes ²	...	yes	yes ²	yes ⁴	...	...	...	yes ²	...	...	...	...
Ohio	yes	yes	...	yes ¹⁴	yes	yes	...	...	...	yes	...	...	...	...	yes	(16, 24, 39)
Oklahoma	yes	yes	yes ²	yes	yes	yes	yes	yes ⁴	yes	...	...	...	...	...	yes	(24, 39, 49)
Oregon	yes	yes	yes ²	yes ²⁸	yes	yes	...	yes ¹⁴	...	...	...	yes	...	...	...	...
Pennsylvania	yes	yes	yes ³	...	yes ¹⁵	yes ²⁰	...	...	...	yes	yes	...	...	...	yes	(12)
Rhode Island	yes	yes	yes ⁴	yes	yes	...	yes ²	yes ¹⁶	...	...	yes	...	yes	yes	yes	(40)
South Carolina	yes	yes	yes ²	yes	...	...	...	...	...	...	...	...	...	...	...	...
South Dakota	yes	yes ²	yes ²	...	...	yes	yes ²	yes ²	...	...	...	...	...	...	...	(7)
Tennessee	yes	yes	yes ³	yes	yes	yes	yes	...	yes	yes	...	...	...	...	...	(10, 26, 41, 46)
Texas	yes ⁵⁴	yes	yes ¹⁴	...	...	yes ⁵⁵	...	yes ⁴	...	...	yes ⁵²	yes	...	yes	...	...
Utah	yes	yes	yes	yes	yes	yes	yes	yes	...	...	yes ¹⁴	...	...	...	...	...
Vermont	yes	yes	yes ¹⁴	...	...	yes ²⁵	yes	yes ⁴	...	...	...	...	...	...	...	(19)
Virginia	yes	...	yes ²	...	yes	yes	...	...	yes	...	...	...	...	...	...	(5, 13, 42, 43)
Washington	yes	yes	yes ²	yes	yes	yes	yes	yes ³	...	...	yes ⁴	yes	...	...	yes	...
West Virginia	yes	yes	yes ³	yes	...	yes	...	...	...	...	...	...	yes	...	...	...
Wisconsin	yes	yes	yes ²	yes	yes	yes ³⁵	...	...	...	...	yes ⁴	...	...	...	...	(44)
Wyoming	yes	yes	yes ²	yes	yes	yes	yes ²	yes ³	yes	...	yes ³	yes	...	...	...	(8, 9, 48)

¹ If unknown to husband. ² 1 year. ³ 2 years. ⁴ 5 years. ⁵ Crime against nature. ⁶ With imprisonment of 1 year. ⁷ Absence of 1 year. ⁸ Felony before marriage. ⁹ Husband a vagrant. ¹⁰ Infamous crime. ¹¹ Loathsome disease. ¹² Relationship within prohibited degree. ¹³ Wife a prostitute. ¹⁴ 3 years. ¹⁵ Absence of 3 years. ¹⁶ Insanity at time of marriage. ¹⁷ Habitual intemperance. ¹⁸ With imprisonment for life. ¹⁹ Absence of 7 years. ²⁰ With imprisonment of 2 years. ²¹ Wife under 16 at time of marriage. ²² Husband under 18 at time of marriage. ²³ Feeble-mindedness or epilepsy for 5 years. ²⁴ Defendant obtained divorce from plaintiff in any other state or country. ²⁵ Absence. ²⁶ Attempt by one party on life of other. ²⁷ Infected other party with communicable venereal disease. ²⁸ Joining a religious cult disbelieving in marriage. ²⁹ Unchaste behavior of wife after marriage. ³⁰ Public defamation. ³¹ 18 months. ³² With imprisonment of 3 years. ³³ 18 months of which have been served. ³⁴ Excessively vicious conduct; any cause which, by laws of state, renders marriage null and void at its inception. ³⁵ 10 years. ³⁶ 1 year, if contracted after marriage. ³⁷ With imprisonment of 3 years. ³⁸ Noncohabitation for 3 years. ³⁹ 10 years. ⁴⁰ Absence of 2 years. ⁴¹ Infamous crime before marriage. ⁴² Fugitive from justice and absent for 2 years. ⁴³ Absence of 5 years. ⁴⁴ If at time of marriage and incurable. ⁴⁵ Indignities. ⁴⁶ Ungovernable temper. ⁴⁷ Noncohabitation for 2 years. ⁴⁸ Incompatibility. ⁴⁹ Imprisonment for 2 years, sentence being for 7 years or more. ⁵⁰ Noncohabitation for 5 years. ⁵¹ 7 years. ⁵² 1 year. ⁵³ Wife's adultery. Husband's adultery when combined with abandonment. ⁵⁴ Suit for divorce cannot be sustained until 12 months after final judgment of conviction. Divorce cannot be obtained if plaintiff's testimony contributed toward conviction. ⁵⁵ Absence of 3 years and/or insanity at time of marriage.

Per Cent of Population Ever Married: U. S., 1890-1957

Source: U. S. Bureau of the Census.

Age group, years	1890	1900	1910	1920	1930	1940	1950	1957
Males								
14-19.....	0.4	0.9	1.0	1.8	1.5	1.5	2.6	2.5
20-24.....	19.2	22.1	24.6	29.0	28.9	27.8	43.9	48.2
25-29.....	53.8	54.0	56.9	60.3	63.1	64.0	81.5	76.8
30-34.....	73.3	72.2	73.7	75.7	78.7	79.3	81.5	87.1
35-44.....	84.5	82.9	83.1	83.7	85.6	86.0	89.3	91.4
45-54.....	90.7	89.6	88.7	87.8	88.5	88.9	89.4	92.3
Females								
14-19.....	8.0	9.4	9.7	10.8	10.9	10.0	15.2	13.0
20-24.....	48.1	48.3	51.4	54.3	53.8	52.8	68.4	71.0
25-29.....	74.5	72.4	74.9	76.8	78.2	77.2	89.2	88.8
30-34.....	84.8	83.3	83.8	85.0	86.7	85.3	89.2	92.7
35-44.....	90.1	88.8	88.5	88.6	89.9	89.6	91.6	93.6
45-54.....	92.9	92.1	91.4	90.3	90.8	91.3	92.2	93.0

Marriage Prospects of Single Men and Women

Source: U. S. Bureau of the Census.

Age	Per cent of population single ¹		Per cent who ever marry ²		Age	Per cent of population single ¹		Per cent who ever marry ²	
	Male	Female	Male	Female		Male	Female	Male	Female
15.....	99.1	98.0	92.2	93.5	33.....	11.9	8.3	58.5	42.1
16.....	99.2	94.0	92.4	93.5	34.....	11.0	8.1	54.1	38.0
17.....	98.4	86.4	92.5	93.5	35.....	10.9	9.3	49.7	34.3
18.....	96.1	75.6	92.6	93.3	36.....	10.3	8.1	45.6	31.0
19.....	90.7	62.4	92.7	92.9	37.....	9.7	7.8	41.6	27.9
20.....	82.2	50.0	92.6	92.1	38.....	9.9	8.3	38.1	25.2
21.....	70.2	38.7	92.3	90.8	39.....	8.9	7.5	34.8	22.6
22.....	58.6	30.1	91.8	89.0	40.....	9.9	9.3	31.7	20.2
23.....	47.1	23.9	90.0	86.3	41.....	8.5	7.5	28.8	18.1
24.....	38.4	19.8	89.6	82.8	42.....	8.8	8.1	26.0	16.1
25.....	32.2	16.5	88.0	78.5	43.....	8.2	7.5	23.5	14.4
26.....	27.6	15.0	85.9	73.7	44.....	8.7	7.7	21.2	12.8
27.....	22.7	12.7	83.4	68.9	45.....	9.5	8.9	19.1	11.3
28.....	19.4	11.6	80.3	64.4	50.....	9.6	8.8	11.1	6.1
29.....	16.6	10.4	76.6	59.9	55.....	8.9	8.0	6.2	3.2
30.....	15.9	10.8	72.3	55.3	60.....	9.2	8.6	3.3	1.6
31.....	13.3	9.2	67.5	50.8	65 and over.....	8.3	8.9	1.9	0.8
32.....	13.1	9.2	63.0	46.4					

¹ Per cent single within specified year of age in 1950, in 3½% sample of population. ² Per cent of persons single at beginning of year of age who marry during that year and all later years. NOTE: "Single" means those never married; that is, it excludes widowed and divorced. Hence, "marriage prospects" refers to likelihood of first marriage only.

Median Age at First Marriage in the U. S., 1890-1957

Source: U. S. Bureau of the Census.

Year	Males	Females	Year	Males	Females	Year	Males	Females	Year	Males	Females
1890.....	26.1	22.0	1910.....	25.1	21.6	1930.....	24.3	21.3	1950.....	23.9	21.6
1900.....	25.9	21.9	1920.....	24.6	21.2	1940.....	24.3	21.5	1957.....	*	20.3

* Not available; 22.9 for 1956.

BIRTHS

Live Births and Birth Rates, 1956-57

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	Number			Rate		
	1956	1957	Per cent change	1956	1957	Per cent change
Alabama.....	83,721	83,808	+0.1	26.8	26.6	-0.7
Arizona.....	29,925	32,281	+7.9	27.6	28.4	+2.9
Arkansas.....	42,306	42,879	+1.4	24.0	24.3	+1.3
California.....	328,929	355,498	+8.1	24.4	25.5	+4.5
Colorado.....	42,655	43,044	+0.9	26.2	25.7	-1.9
Connecticut.....	52,590	55,862	+6.2	23.7	24.8	+4.6
Delaware.....	11,433	11,887	+4.0	27.4	27.1	-1.1
D. C.....	33,518	33,344	-0.5	40.3	40.1	-0.5
Florida.....	96,967	103,927	+7.2	25.0	25.4	+1.6
Georgia.....	103,328	103,581	+0.2	27.9	27.4	-1.8
Idaho.....	16,427	16,507	+0.5	26.3	25.8	-1.9
Illinois.....	225,327	236,143	+4.8	23.8	24.5	+2.9
Indiana.....	114,383	114,797	+0.4	25.8	25.3	-1.9
Iowa.....	64,070	64,369	+0.5	23.3	23.0	-1.3
Kansas.....	51,817	50,934	-1.7	24.6	23.8	-3.3
Kentucky.....	75,931	75,240	-0.9	25.3	24.8	-2.0
Louisiana.....	88,332	90,873	+2.9	29.3	29.6	+1.0
Maine.....	22,413	22,063	-1.6	24.1	23.4	-2.9
Maryland.....	65,377	68,049	+4.1	23.1	23.5	+1.7
Massachusetts.....	112,448 ^a	(c)	....	....	....	....
Michigan.....	204,291	207,677	+1.7	27.0	26.6	-1.5
Minnesota.....	81,276	84,788	+4.3	24.9	25.5	+2.4
Mississippi.....	65,672	63,608	-3.1	30.5	29.1	-4.6
Missouri.....	97,820	103,623	+5.9	23.3	24.4	+4.7
Montana.....	17,484	17,994	+2.9	26.8	27.0	+0.7
Nebraska.....	33,676	32,583	-3.2	23.6	22.4	-5.1
Nevada.....	6,444	6,661	+3.4	25.2	24.9	-1.2
New Hampshire.....	12,261	13,111	+6.9	21.7	22.9	+5.5
New Jersey.....	118,986	124,572	+4.7	21.6	22.1	+2.3
New Mexico.....	26,499	27,401	+3.4	32.7	33.0	+0.9
New York.....	348,539	360,741	+3.5	22.0	22.7	+3.2
North Carolina.....	116,285	113,567	-2.3	26.4	25.2	-4.5
North Dakota.....	16,693	16,610	-0.5	26.0	25.8	-0.8
Ohio.....	233,864	243,137	+4.0	25.8	26.4	+2.3
Oklahoma.....	52,152	50,957	-2.3	23.2	22.4	-3.4
Oregon.....	37,941	37,437	-1.3	21.9	21.2	-3.2
Pennsylvania.....	247,815	251,021	+1.3	22.7	22.7	0
Rhode Island.....	19,365	19,659	+1.5	22.9	22.8	-0.4
South Carolina.....	63,319	62,846	-0.7	27.2	26.5	-2.6
South Dakota.....	18,280	17,867	-2.3	26.4	25.5	-3.4
Tennessee.....	86,620	85,346	-1.5	25.3	24.6	-2.8
Texas.....	246,265	250,871	+1.9	27.5	27.5	0
Utah.....	25,453	25,901	+1.8	30.9	30.4	-1.6
Vermont.....	8,895	8,949	+0.6	24.0	23.8	-0.8
Virginia.....	92,464	92,391	-0.1	25.0	24.3	-2.8
Washington.....	65,556	65,350	-0.3	24.5	24.0	-2.0
West Virginia.....	45,896	45,098	-1.7	23.4	22.8	-2.6
Wisconsin.....	93,382	96,106	+2.9	24.7	24.9	+0.8
Wyoming.....	8,306	8,117	-2.3	26.3	25.7	-2.3

¹ Figure not available. ² Final 1956 data. NOTE: Rates are per 1,000 estimated midyear population in each specified area; births are by place of occurrence. Data are provisional.

Live Births in the United States, 1910-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Births ¹	Rate ²	Year	Births ¹	Rate ²	Year	Births ¹	Rate ²
1910.....	2,777,000	30.1	1926.....	2,839,000	24.2	1942.....	2,989,000	22.2
1911.....	2,809,000	29.9	1927.....	2,802,000	23.5	1943.....	3,104,000	22.7
1912.....	2,840,000	29.8	1928.....	2,674,000	22.2	1944.....	2,939,000	21.2
1913.....	2,869,000	29.5	1929.....	2,582,000	21.2	1945.....	2,858,000	20.4
1914.....	2,966,000	29.9	1930.....	2,618,000	21.3	1946.....	3,411,000	24.1
1915.....	2,965,000	29.5	1931.....	2,506,000	20.2	1947.....	3,817,000	26.6
1916.....	2,964,000	29.1	1932.....	2,440,000	19.5	1948.....	3,637,000	24.9
1917.....	2,944,000	28.5	1933.....	2,307,000	18.4	1949.....	3,649,000	24.5
1918.....	2,948,000	28.2	1934.....	2,396,000	19.0	1950.....	3,632,000	24.1
1919.....	2,740,000	26.1	1935.....	2,377,000	18.7	1951.....	3,823,000	24.9
1920.....	2,950,000	27.7	1936.....	2,355,000	18.4	1952.....	3,913,000	25.1
1921.....	3,055,000	28.1	1937.....	2,413,000	18.7	1953.....	3,965,000	25.0
1922.....	2,882,000	26.2	1938.....	2,496,000	19.2	1954.....	4,078,000	25.3
1923.....	2,910,000	26.0	1939.....	2,466,000	18.8	1955.....	4,104,000	25.0
1924.....	2,979,000	26.1	1940.....	2,559,000	19.4	1956.....	4,218,000	25.2
1925.....	2,909,000	25.1	1941.....	2,703,000	20.3	1957 ³	4,301,000	25.3

¹ Adjusted for underregistration and for births in states not in the birth registration area from 1915 to 1932; estimates for earlier years are based upon data for a few states. ² Rates are per 1,000 population estimated as of July 1 for each year except 1940 and 1950, which are as of April, the census date; for 1941-46 based on population including armed forces overseas. ³ Provisional.

Live Births by Order of Birth, 1940-56

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year & race	Total	Birth Order						
		1st	2nd	3rd	4th	5th	6th & 7th	8th & over
1940.....	2,558,647	940,116	639,236	349,941	205,443	131,099	154,138	138,674
1945.....	2,858,449	961,456	763,494	445,705	248,607	148,251	159,100	131,836
1946.....	3,410,738	1,290,703	934,676	486,813	262,213	151,030	158,035	127,268
1947.....	3,816,770	1,574,001	1,018,873	523,722	266,976	151,703	156,269	125,226
1948.....	3,636,627	1,343,056	1,047,097	545,131	271,888	152,191	155,567	121,697
1949.....	3,648,867	1,234,963	1,092,658	584,175	292,951	158,496	160,328	125,296
1950.....	3,631,512	1,140,398	1,096,716	630,102	314,067	165,808	162,039	122,382
1951 ¹	3,822,961	1,195,333	1,116,358	685,721	351,234	180,341	170,285	123,689
1952 ¹	3,913,115	1,169,490	1,121,825	732,939	386,813	199,921	178,022	124,105
1953 ¹	3,964,750	1,149,993	1,119,751	752,655	412,076	216,238	189,545	124,492
1954 ¹	4,078,055	1,159,644	1,119,393	785,066	442,800	234,717	206,708	129,727
1955.....	4,104,112	1,138,375	1,103,633	799,598	461,561	249,060	219,752	132,133
1956 ¹	4,218,035	1,165,552	1,109,403	820,686	483,232	263,395	236,310	139,457
White ¹	3,572,948	1,021,417	982,884	719,731	404,472	203,538	161,307	79,599
Nonwhite ¹	645,087	144,135	126,519	100,955	78,760	59,857	75,063	59,858

Birth Rate

Year	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
1940.....	79.9	29.3	20.0	10.9	6.4	4.1	4.8	4.3
1945.....	85.9	28.9	22.9	13.4	7.5	4.5	4.8	4.0
1946.....	101.9	38.5	27.9	14.5	7.8	4.5	4.7	3.8
1947.....	113.3	46.7	30.3	15.6	7.9	4.5	4.6	3.7
1948.....	107.3	39.6	30.9	16.1	8.0	4.5	4.6	3.6
1949.....	107.1	36.2	32.1	17.1	8.6	4.7	4.7	3.7
1950.....	106.2	33.3	32.1	18.4	9.2	4.8	4.7	3.6
1951 ¹	111.3	34.8	32.5	20.0	10.2	5.2	5.0	3.6
1952 ¹	113.5	33.9	32.5	21.3	11.2	5.8	5.2	3.6
1953 ¹	114.7	33.3	32.4	21.8	11.9	6.3	5.5	3.6
1954 ¹	117.6	33.5	32.3	22.6	12.8	6.8	6.0	3.7
1955.....	118.0	32.7	31.7	23.0	13.3	7.2	6.3	3.8
1956 ¹	120.8	33.4	31.8	23.5	13.8	7.5	6.8	4.0
White ¹	115.6	33.0	31.8	23.3	13.1	6.6	5.2	2.6
Nonwhite ¹	161.0	36.0	31.6	25.2	19.7	14.9	18.7	14.9

NOTE: Birth order refers to number of children born alive to mother. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for births of order birth order. Rates are live births per 1,000 female population aged 15-44 years in each specified group. Population enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1943-49 and 1951-56. Births are adjusted for under-registration. ¹ 1951-54 and 1956 based on data from a 50% sample.

Crude Birth Rate for Selected Countries, 1938, 1953, 1955, 1957

Source: Statistical Office of the United Nations.

Country	Rate ¹				Country	Rate ¹			
	1938	1953	1955	1957		1938	1953	1955	1957
North America					Europe (cont.)				
Canada ²	20.7	28.1	28.2	28.6	Hungary.....	19.9	21.6	21.5	17.0
Costa Rica.....	45.5	47.5	47.4	57.5 ¹³	Ireland.....	19.4	21.2	21.2	*
El Salvador.....	43.7	47.9	47.9	48.0	Italy.....	23.8	17.7	18.1	18.3
Mexico.....	43.5	45.0	46.4	*	Luxemburg.....	14.9	16.0	16.1	*
Nicaragua.....	40.8	42.3	42.9	*	Netherlands.....	20.5	21.8	21.4	21.2
Panamá ³	45.5	38.6	40.0	41.6	Norway.....	15.4	18.7	18.5	18.2
Puerto Rico.....	38.6	35.1	34.4	*	Portugal.....	26.6	23.4	23.9	23.3
United States.....	17.6	24.6	24.6	25.0	Rumania.....	29.5	23.8	24.8	24.2
South America					Spain.....	20.1	20.6	20.6	21.7 ¹⁴
Chile.....	36.1	34.6	35.0	*	Sweden.....	14.9	15.4	14.8	14.6
Peru ⁴	*	35.0	29.5	*	Switzerland.....	15.2	17.0	17.1	17.7
Venezuela ⁴	33.7	46.1	47.2	*	United Kingdom.....	15.5	15.9	15.5	16.5
Europe					Asia				
Austria.....	13.9	14.8	15.6	*	Ceylon.....	35.8	38.7	37.3	*
Belgium.....	16.0	16.6	16.8	*	India ⁵	33.3	24.8 ¹⁵	27.0 ¹⁶	*
Bulgaria.....	22.8	20.7	20.0	*	Israel ⁷	26.3	30.2	27.2	25.9
Czechoslovakia.....	16.7	21.2	20.3	18.9	Japan ⁸	27.1	21.5	19.4 ¹²	*
Denmark.....	18.1	17.9	17.3	*	Other				
Finland ⁶	21.0	21.9	21.2	19.8	Australia ⁹	17.5	22.9	22.6	22.9
France.....	15.0	18.9	18.6	18.4	New Zealand ¹⁰	18.0	24.1	24.9	24.9
Germany, West.....	19.7	15.8	16.0	17.0	U. of So. Africa ¹¹	25.0	25.1	25.5	*

¹ Number of births per 1,000 population. ² Excluding Yukon and Northwest Territories. ³ Excluding tribal Indians. ⁴ Excluding Indian jungle population. ⁵ Prior to 1951, data relate to Finnish nationals in Finland. ⁶ Registration area only. ⁷ Jewish population only. ⁸ Japanese nationals in Japan only. ⁹ Excluding full-blooded aborigines. ¹⁰ Excluding Maoris. ¹¹ White population only (about 20% of total). ¹² Including Amami Islands. ¹³ Exceptionally high rate due to inclusion of delayed registrations. ¹⁴ Excluding births in Province of Valencia during last quarter of 1957. ¹⁵ Excluding Ajmer. ¹⁶ Excluding Bihar, Madhya Pradesh and Orissa. * Information not available.

Live Births and Birth Rates by Race

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Rates per 1,000 population in each specified group, enumerated as of Apr. 1 for 1940 and 1950, and estimated as of July 1 for 1945 (including Armed Forces overseas) and for 1956 (present in area).

Race	Births, 1956*	Rates			Race	Births, 1956*	Rates		
		1950	1945	1940			1950	1945	1940
White.....	3,545,350	22.7	19.1	17.5	Japanese.....	7,284	24.1	22.9	14.8
Negro.....	584,572	31.0	23.3	21.7	Other.....	4,292	18.3	20.7	21.0
Indian.....	16,902	39.0	26.8	28.6	All races.....	4,163,090	23.6	19.5	17.9
Chinese.....	4,690	42.9	17.1	14.2					

* Based on 50% sample of registered births.

Multiple Births in the United States, 1933-50

Source: Statistical Bulletin of the Metropolitan Life Insurance Co.

Age and color of mother	Number of confinements*	Cases of multiple births per million confinements			
		Total	Twins	Triplets	Quadruplets
Total—All ages	48,586,704	10,939	10,833	104	1.5
Under 20.....	5,838,182	6,167	6,127	40	.2
20-24.....	15,361,317	8,585	8,519	65	1.0
25-29.....	13,400,847	11,343	11,240	102	1.3
30-34.....	8,299,863	14,347	14,188	157	2.0
35-39.....	4,338,446	17,114	16,890	220	4.4
40-44.....	1,243,764	13,942	13,771	169	1.6
45 and over.....	104,285	8,697	8,592	86	†
Color—All Ages					
White.....	42,538,339	10,621	10,524	96	1.1
Nonwhite.....	6,048,365	13,174	13,005	165	4.3

* Confinements from which at least one infant was born alive. † Cases too few to warrant computation. Source of basic data: Various reports by the National Office of Vital Statistics. Births reported with age of mother unknown were prorated; the age distributions for 1937, 1938, 1942, and 1943 were estimated by the Statistical Bureau, Metropolitan Life Insurance Company.

Live Births by Age of Mother; U. S., 1940-1956

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year and race	Total ¹	Age of mother							
		Under 15 yrs. ²	15-19 yrs.	20-24 yrs.	25-29 yrs.	30-34 yrs.	35-39 yrs.	40-44 yrs.	45 yrs. and over ³
1940.....	2,558,647	3,865	332,667	799,537	693,268	431,468	222,015	68,269	7,558
1945.....	2,858,449	4,028	298,868	832,746	785,299	554,906	296,852	78,853	6,897
1946.....	3,410,738	3,863	339,833	1,090,802	967,946	610,736	311,361	79,648	6,549
1947.....	3,816,770	4,911	445,047	1,254,902	1,069,820	635,647	318,516	81,605	6,322
1948.....	3,636,627	5,337	449,568	1,193,146	1,006,183	597,036	301,096	78,387	5,874
1949.....	3,648,867	5,445	448,768	1,183,647	1,029,851	596,014	301,785	77,585	5,772
1950.....	3,631,512	5,413	432,911	1,155,167	1,041,360	610,816	302,780	77,743	5,322
1951 ⁴	3,822,961	5,460	456,523	1,220,900	1,090,147	649,542	313,843	81,137	5,409
1952 ⁴	3,913,115	5,358	449,163	1,232,057	1,120,702	690,940	326,299	83,018	5,578
1953 ⁴	3,964,750	5,634	466,495	1,239,197	1,126,449	702,219	333,652	85,730	5,374
1954 ⁴	4,078,055	6,396	488,313	1,275,313	1,137,123	731,850	344,490	89,122	5,448
1955.....	4,014,112	6,181	493,770	1,290,939	1,133,155	732,540	352,320	89,777	5,430
1956 ⁴	4,218,035	6,656	530,017	1,341,970	1,144,456	735,734	361,933	91,834	5,435
White ⁴	3,572,948	2,422	406,974	1,140,872	992,010	637,104	310,819	78,310	4,437
Nonwhite ⁴	645,087	4,234	123,043	201,098	152,446	98,630	51,114	13,524	998

Birth rate

1940.....	79.9	0.7	54.1	135.6	122.8	83.4	46.3	15.6	1.9
1945.....	85.9	0.8	51.1	138.9	132.2	100.2	56.9	16.6	1.6
1946.....	101.9	0.7	59.3	181.8	161.2	108.9	58.7	16.5	1.5
1947.....	113.3	0.9	79.3	209.7	176.0	111.9	58.9	16.6	1.4
1948.....	107.3	1.0	81.8	200.3	163.4	103.7	54.5	15.7	1.3
1949.....	107.1	1.0	83.4	200.1	165.4	102.1	53.5	15.3	1.3
1950.....	106.2	1.0	81.6	196.6	166.1	103.7	52.9	15.1	1.2
1951 ⁴	111.3	1.0	86.9	212.0	174.2	108.3	54.1	15.3	1.2
1952 ⁴	113.5	0.9	85.4	218.1	180.4	113.1	56.1	15.3	1.2
1953 ⁴	114.7	0.9	87.5	224.5	183.8	113.0	57.3	15.5	1.1
1954 ⁴	117.6	1.0	89.8	235.6	188.5	116.4	58.8	15.8	1.1
1955.....	118.0	0.9	89.7	240.4	190.8	115.8	59.5	15.7	1.1
1956 ⁴	120.8	1.0	94.2	251.3	195.5	116.4	60.3	15.9	1.0
White ⁴	115.6	0.4	83.0	244.1	192.1	113.3	57.7	15.2	0.9
Nonwhite ⁴	161.0	5.1	169.9	301.9	220.3	141.1	83.0	22.2	1.9

NOTE: Births are adjusted for underregistration. Figures are shown to the last digit as computed for convenience in summation. They are not assumed to be accurate to the last digit. Figures for age of mother not stated are distributed. Rates are live births per 1,000 female population in each specified group, enumerated as of April 1 for 1940 and 1950, and estimated as of July 1 for 1943-49 and 1951-56. Figures for age of mother not stated are distributed. ¹ Rates computed by relating total births, regardless of age of mother, to female population aged 14-44 years. ² Rates computed by relating births to mothers under 15 years, to female population aged 10-14. ³ Rates computed by relating births to mothers 45 years and over, to female population aged 45-49 years. ⁴ 1951-54 and 1956 based on a 50% sample.

Households, Families and Married Couples in the United States from 1890 to 1957

Source: U. S. Bureau of the Census.

Date	Households		Families		Married couples
	Number	Average population per household	Number	Average population per family	Number
June 1890.....	12,690,000	4.93	—	—	—
April 1930.....	29,905,000	4.01	—	—	25,174,000
April 1940.....	34,949,000	3.67	32,166,000	3.76	28,517,000
March 1950.....	43,554,000	3.37	39,303,000	3.54	36,091,000
March 1957.....	49,543,000	3.34	43,445,000	3.61	38,940,000

Number of Families in the U. S., April 1940 and 1950

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports of the Bureau of the Census.

State	1940	1950	Per cent increase	Persons per family, 1950
Alabama.....	646,000	729,765	13	3.98
Arizona.....	116,000	181,985	57	3.77
Arkansas.....	472,000	477,200	1	3.78
California.....	1,816,000	2,827,110	56	3.29
Colorado.....	278,000	338,205	22	3.51
Connecticut.....	412,000	512,280	24	3.59
Delaware.....	64,000	79,730	25	3.65
D. C.....	165,000	198,180	20	3.26
Florida.....	473,000	721,460	53	3.44
Georgia.....	715,000	824,095	15	3.91
Idaho.....	128,000	148,710	16	3.67
Illinois.....	2,008,000	2,287,955	14	3.45
Indiana.....	892,000	1,039,105	16	3.50
Iowa.....	644,000	686,785	7	3.49
Kansas.....	460,000	507,665	10	3.42
Kentucky.....	671,000	717,535	7	3.86
Louisiana.....	554,000	648,410	17	3.87
Maine.....	201,000	223,175	11	3.75
Maryland.....	431,000	581,840	35	3.68
Massachusetts.....	1,025,000	1,171,805	14	3.62
Michigan.....	1,308,000	1,624,875	24	3.62
Minnesota.....	665,000	747,680	12	3.63
Mississippi.....	504,000	508,960	1	4.04
Missouri.....	986,000	1,057,260	7	3.41
Montana.....	133,000	145,775	10	3.62
Nebraska.....	327,000	344,720	5	3.51
Nevada.....	27,000	40,945	52	3.37
New Hampshire.....	120,000	134,255	12	3.59
New Jersey.....	1,030,000	1,263,570	23	3.54
New Mexico.....	119,000	159,885	34	3.97
New York.....	3,379,000	3,862,050	14	3.47
North Carolina.....	772,000	939,215	22	4.07
North Dakota.....	139,000	144,855	4	3.94
Ohio.....	1,761,000	2,077,595	18	3.53
Oklahoma.....	587,000	590,840	1	3.50
Oregon.....	291,000	411,690	41	3.34
Pennsylvania.....	2,345,000	2,639,925	13	3.68
Rhode Island.....	167,000	198,630	19	3.63
South Carolina.....	410,000	477,780	17	4.19
South Dakota.....	149,000	160,625	8	3.73
Tennessee.....	686,000	808,145	18	3.83
Texas.....	1,580,000	1,978,950	25	3.60
Utah.....	130,000	169,925	31	3.83
Vermont.....	84,000	90,100	7	3.77
Virginia.....	593,000	785,060	32	3.85
Washington.....	451,000	625,185	39	3.36
West Virginia.....	434,000	479,265	10	3.95
Wisconsin.....	758,000	867,990	15	3.64
Wyoming.....	60,000	72,235	20	3.57
United States.....	32,166,000	38,310,980	19	3.60

Portraits and Designs of U. S. Paper Currency

Denomi- nation	Portrait	Design on back	Denomi- nation	Portrait	Design on back
\$1	Washington	ONE between obverse and re- verse of Great Seal of U. S.	\$100	Franklin	Independence Hall.
\$2	Jefferson	Monticello.	\$500	McKinley	Ornate FIVE HUNDRED across.
\$5	Lincoln	Lincoln Memorial.	\$1,000	Cleveland	Ornate ONE THOUSAND across.
\$10	Hamilton	U. S. Treasury Building.	\$5,000	Madison	Ornate FIVE THOUSAND across.
\$20	Jackson	White House.	\$10,000	Chase	Ornate TEN THOUSAND across.
\$50	Grant	U. S. Capitol.	\$100,000*	Wilson	100,000 superimposed over dol- lar sign.

* For use only in transactions between Federal Reserve System and Treasury Department.

MORTALITY

Death Rates in the United States, 1900-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Year	Rate ¹	Year	Rate ¹	Year	Deaths	Rate ¹
1900.....	17.2	1920.....	13.0	1940.....	1,417,269	10.8
1901.....	16.4	1921.....	11.5	1941.....	1,397,642	10.5
1902.....	15.5	1922.....	11.7	1942.....	1,385,187	10.3
1903.....	15.6	1923.....	12.1	1943.....	1,459,544	10.9
1904.....	16.4	1924.....	11.6	1944.....	1,411,338	10.6
1905.....	15.9	1925.....	11.7	1945.....	1,401,719	10.6
1906.....	15.7	1926.....	12.1	1946.....	1,395,617	10.0
1907.....	15.9	1927.....	11.3	1947.....	1,445,370	10.1
1908.....	14.7	1928.....	12.0	1948.....	1,444,337	9.9
1909.....	14.2	1929.....	11.9	1949.....	1,443,607	9.7
1910.....	14.7	1930.....	11.3	1950.....	1,452,454	9.6
1911.....	13.9	1931.....	11.1	1951.....	1,482,099	9.7
1912.....	13.6	1932.....	10.9	1952.....	1,496,838	9.6
1913.....	13.8	1933.....	10.7	1953.....	1,517,541	9.6
1914.....	13.3	1934.....	11.1	1954.....	1,481,091	9.2
1915.....	13.2	1935.....	10.9	1955.....	1,528,717	9.3
1916.....	13.8	1936.....	11.6	1956.....	1,564,476	9.4
1917.....	14.0	1937.....	11.3	1957 ²	1,636,000	9.6
1918.....	18.1	1938.....	10.6			
1919.....	12.9	1939.....	10.6			

¹ Rates are per 1,000 population as of July 1 for each year except 1940 and 1950 which are as of April 1, the census date. Rates are based on population excluding armed forces overseas. Fetal deaths are excluded. Data relate to the total United States only from 1933; for earlier years, the death rates relate to Death Registration States. ² Provisional.

Death Rates* by Age and Sex; U. S., 1900-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Age group, years	1900	1920	1940	1950	1957	1900	1920	1940	1950	1957
	White Males					White Females				
Under 1.....	175.9	98.1	56.7	34.0	29.4	142.6	76.1	43.6	25.7	22.7
1-4.....	20.2	9.8	2.8	1.4	1.0	18.7	9.0	2.4	1.1	.9
5-14.....	3.8	2.7	1.1	.7	.5	3.8	2.3	.8	.5	.4
15-24.....	5.8	4.2	2.0	1.5	1.6	5.6	4.3	1.4	.7	.6
25-34.....	8.1	5.9	2.8	1.9	1.6	8.1	6.5	2.2	1.1	1.0
35-44.....	10.6	7.7	5.1	3.8	3.4	9.6	7.3	3.7	2.4	2.0
45-54.....	15.5	12.0	11.4	9.8	9.1	14.0	10.9	7.5	5.5	4.7
55-64.....	28.5	24.2	25.2	23.0	22.5	25.5	21.7	16.8	12.9	11.5
65-74.....	59.1	54.2	54.0	48.6	50.8	53.4	49.9	41.5	32.4	30.8
75-84.....	128.2	122.5	122.0	105.3	104.8	118.9	116.4	104.8	84.8	79.3
85 and over.....	...	...	251.4	221.2	212.3	...	...	235.0	196.8	205.7
	Nonwhite Males					Nonwhite Females				
Under 1.....	369.3	167.7	101.2	59.9	56.9	299.5	131.1	77.4	47.5	43.9
1-4.....	43.4	15.0	5.3	2.7	2.2	43.5	14.2	4.4	2.3	1.9
5-14.....	7.8	3.7	1.6	1.0	.8	10.1	3.9	1.4	.7	.5
15-24.....	11.8	9.9	5.0	2.9	2.3	11.2	10.8	5.0	2.2	1.2
25-34.....	12.5	12.2	8.5	5.0	4.3	11.7	13.5	7.4	3.9	3.1
35-44.....	14.2	14.4	13.2	8.6	7.7	15.6	16.0	11.7	7.5	6.0
45-54.....	24.7	20.1	24.5	18.6	15.6	23.9	23.4	21.1	15.5	12.3
55-64.....	42.1	31.1	37.1	34.8	33.3	42.1	35.8	33.2	27.6	25.8
65-74.....	71.6	60.2	62.8	57.9	65.0	66.4	60.4	52.3	46.1	50.8
75-84.....	131.4	116.0	108.8	90.3	82.5	113.2	106.4	84.1	70.6	62.6
85 and over.....	...	...	199.7	160.2	101.7	...	...	159.7	133.7	98.1

* Rates per 1,000 population of specified age, sex and race; 1957 is estimated.

Deaths and Infant Deaths in Each State Reporting, 1956-57

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

State	DEATHS (ALL AGES)						INFANT DEATHS (UNDER 1 YEAR)					
	Number			Rate			Number			Rate		
	1956	1957	Percent change	1956	1957	Percent change	1956	1957	Percent change	1956	1957	Percent change
Alabama.....	27,003	28,201	+4.4	8.7	8.9	+2.3	2,573	2,703	+5.1	30.7	32.3	+5.2
Alaska.....	1,240	1,279	+3.1	6.0	6.2	+3.3	314	308	-1.9	41.0	39.0	-4.9
Arizona.....	8,469	9,164	+8.2	7.8	8.1	+3.8	967	1,135	+17.4	32.3	35.2	+9.0
Arkansas.....	15,504	16,587	+7.0	8.8	9.4	+6.8	1,034	1,062	+2.7	24.4	24.8	+1.6
California.....	117,815	125,783	+6.8	8.7	9.0	+3.4	7,774	8,714	+12.1	23.6	24.5	+3.8
Colorado.....	13,981	14,706	+5.2	8.6	8.8	+2.3	1,241	1,229	-1.0	29.1	28.6	-1.7
Connecticut.....	21,494	22,422	+4.3	9.7	10.0	+3.1	1,138	1,217	+6.9	21.6	21.8	+0.9
Delaware.....	3,844	4,095	+6.5	9.2	9.3	+1.1	246	269	+9.3	21.5	22.6	+5.1
D. C.....	9,502	9,932	+4.5	11.4	12.0	+5.3	912	931	+2.1	27.2	27.9	+2.6
Florida.....	38,852	41,828	+7.7	10.0	10.2	+2.0	3,138	3,317	+5.7	34.4	31.9	-1.5
Georgia.....	31,901	33,749	+5.8	8.6	8.9	+3.5	3,109	3,144	+1.1	30.1	30.4	+1.0
Idaho.....	4,932	5,097	+3.3	7.9	8.0	+1.3	354	389	+9.9	21.5	23.6	+9.8
Illinois.....	95,196	100,940	+6.0	10.0	10.5	+5.0	5,513	5,950	+7.9	24.5	25.2	+2.9
Indiana.....	42,203	43,536	+3.2	9.5	9.6	+1.1	2,707	2,729	+0.8	23.7	23.8	+0.4
Iowa.....	26,566	28,036	+5.5	9.6	10.0	+4.2	1,306	1,327	+1.6	20.4	20.6	+1.0
Kansas.....	19,486	20,268	+4.0	9.3	9.5	+2.2	1,211	1,149	-5.1	23.4	22.6	-3.4
Kentucky.....	27,901	29,236	+4.8	9.3	9.6	+3.2	2,134	2,201	+3.1	28.1	29.3	+4.3
Louisiana.....	26,369	28,357	+7.5	8.8	9.2	+4.5	2,655	2,913	+9.7	30.1	32.1	+6.6
Maine.....	10,026	10,420	+3.9	10.8	11.0	+1.9	516	558	+8.1	23.0	25.3	+10.0
Maryland.....	25,205	26,477	+5.0	8.9	9.1	+2.2	1,767	2,019	+14.3	27.0	29.7	+10.0
Massachusetts.....	52,876*	.....	.....	.....	.....	.....	2,526*	.....	.....	.....	.....	.....
Michigan.....	64,119	66,116	+3.1	8.5	8.5	0	5,013	5,089	+1.5	24.5	24.5	0
Minnesota.....	29,902	31,780	+6.3	9.2	9.6	+4.3	1,759	1,907	+8.4	21.6	22.5	+4.2
Mississippi.....	19,947	20,329	+1.9	9.3	9.3	0	2,373	2,328	-1.9	36.1	36.6	+1.4
Missouri.....	44,942	47,937	+6.7	10.7	11.3	+5.6	2,405	2,397	-0.3	24.6	23.1	-6.1
Montana.....	6,482	6,427	-0.8	9.9	9.7	-2.0	489	461	-5.7	28.0	25.6	-8.6
Nebraska.....	13,430	13,671	+1.8	9.4	9.4	0	679	655	-3.5	20.2	20.1	-0.5
Nevada.....	2,181	2,274	+4.3	8.5	8.5	0	227	205	-9.7	35.2	30.8	-12.5
New Hampshire.....	6,482	6,785	+4.7	11.5	11.9	+3.5	277	347	+25.3	22.6	26.5	+17.3
New Jersey.....	53,070	56,077	+5.7	9.6	10.0	+4.2	2,875	2,952	+2.7	24.2	23.7	-2.1
New Mexico.....	5,635	6,194	+9.9	6.9	7.5	+8.7	950	1,063	+11.9	35.9	38.8	+8.1
New York.....	166,504	172,751	+3.8	10.5	10.9	+3.8	8,308	8,626	+3.8	23.8	23.9	+0.4
North Carolina.....	33,618	35,422	+5.4	7.6	7.9	+3.9	3,558	3,612	+1.5	30.6	31.8	+3.9
North Dakota.....	5,200	5,504	+5.8	8.1	8.5	+4.9	425	443	+4.2	25.5	26.7	+4.7
Ohio.....	88,366	90,843	+2.8	9.7	9.9	+2.1	5,597	5,809	+3.8	23.9	23.9	0
Oklahoma.....	20,622	21,085	+2.2	9.2	9.3	+1.1	1,353	1,299	-4.0	25.9	25.5	-1.6
Oregon.....	15,367	15,572	+1.3	8.9	8.8	-1.1	896	837	-6.6	23.6	22.4	-5.1
Pennsylvania.....	113,915	118,395	+3.9	10.4	10.7	+2.9	6,107	6,262	+2.5	24.6	24.9	+1.2
Rhode Island.....	8,426	8,535	+1.3	10.0	9.9	-1.0	438	449	+2.5	22.6	22.8	+0.9
South Carolina.....	17,887	18,670	+4.4	7.7	7.9	+2.6	1,953	1,910	-2.2	30.8	30.4	-1.3
South Dakota.....	6,075	6,379	+5.0	8.8	9.1	+3.4	421	485	+15.2	23.0	27.1	+17.8
Tennessee.....	30,971	32,757	+5.8	9.1	9.5	+4.4	2,482	2,646	+6.6	28.7	31.0	+8.0
Texas.....	69,301	73,299	+5.8	7.7	8.0	+3.9	7,027	6,947	-1.1	28.5	27.7	-2.8
Utah.....	5,579	5,756	+3.2	6.8	6.8	0	573	571	-0.3	22.5	22.0	-2.2
Vermont.....	4,498	4,409	-2.0	12.1	11.7	-3.3	201	244	+21.4	22.6	27.3	+20.8
Virginia.....	31,043	32,632	+5.1	8.4	8.6	+2.4	2,810	2,884	+2.6	30.4	31.2	+2.6
Washington.....	24,500	25,420	+3.8	9.2	9.3	+1.1	1,550	1,616	+4.3	23.6	24.7	+4.7
West Virginia.....	17,209	17,709	+2.9	8.8	9.0	+2.3	1,144	1,160	+1.4	24.9	25.7	+3.2
Wisconsin.....	35,657	37,183	+4.3	9.4	9.6	+2.1	2,138	2,120	-0.8	22.9	22.1	-3.5
Wyoming.....	2,540	2,655	+4.5	8.0	8.4	+5.0	232	202	-12.9	27.9	24.9	-10.8

NOTE: Rates for deaths at all ages are per 1,000 estimated midyear population in each specified area; infant mortality rates are deaths under one year per 1,000 live births in each specified area. Data are by place of occurrence, exclusive of fetal deaths and of deaths among armed forces overseas. Data are provisional. Leaders (....) indicate data not available. * Final data.

Average of Annual Death Rates for Selected Causes; U. S., 1900-1957

Source: Public Health Service, U. S. Dept. of Health, Education and Welfare.

Cause of death	Death rates per 100,000 in						
	5th revision					Sixth revision	
	1900-04	1920-24	1940-44	1945-49	1950	1950	1957 est.
Typhoid fever.....	26.8	7.4	.7	.2	.1	.1	(*)
Communicable diseases of child- hood.....	65.3	34.0	4.6	2.3	1.3	1.5	(*)
Measles.....	10.0	7.2	1.1	.5	.3	.3	.2
Scarlet fever.....	11.8	4.0	.3	.1	(*)	.2	(*)
Whooping cough.....	10.7	9.0	2.2	1.0	.7	.7	.1
Diphtheria.....	32.8	13.8	1.0	.7	.3	.3	.1
Diarrhea and enteritis.....	115.6	43.2	9.8	6.5	5.0	5.1	4.2
Pneumonia and influenza.....	184.4	141.1	63.8	42.5	35.1	31.3	35.9
Influenza.....	22.9	35.2	13.1	5.1	3.5	4.4	4.3
Pneumonia.....	161.5	105.9	50.7	37.4	31.6	26.9	31.5
Tuberculosis.....	184.8	97.1	43.5	33.5	23.4	22.5	7.5
Cancer.....	67.6	86.8	123.2	133.8	138.4	139.8	149.6
Diabetes mellitus.....	12.2	17.0	26.2	26.8	28.4	16.2	16.4
Cardiovascular-renal diseases.....	338.2	340.9	466.1	465.5	465.0	510.8	524.0
Diseases of the heart.....	147.7	166.1	302.2	318.6	326.1	355.5	368.9
Cerebral hemorrhage.....	106.3	93.4	91.8	91.5	92.0	104.0	110.4
Chronic nephritis.....	84.2	81.4	72.1	55.3	46.9	16.4	8.9
Syphilis.....	12.9	17.5	12.7	8.9	6.8	5.0	2.2
Appendicitis.....	9.3	14.0	7.3	3.5	2.2	2.0	1.2
Accidents, all forms.....	79.1	71.6	73.4	68.4	63.8	60.6	57.2
Motor vehicle accidents.....	—	12.8	22.7	22.3	23.1	23.1	23.5
Infant mortality ¹	—	77.1	42.6	33.5	29.2	29.2	26.3
Neonatal mortality ¹	—	39.8	26.3	22.9	20.5	20.5	18.8
Fetal mortality ¹	—	39.2 ²	28.6	24.5	22.9	22.9	(*)
Maternal mortality ¹	—	6.9	2.9	1.4	.8	.8	.4
All causes.....	1622.3	1198.0	1062.8	1005.4	963.8	963.8	960.5

¹ Rates per 1,000 live births. ² Less than .05. ³ 1922-24. ⁴ Not available. NOTE: Rates per 100,000 population. The figures beginning with 1940 relate to the total United States; for earlier periods the figures relate to the Death Registration States. The death rates for 1950 are shown on the basis of both the Fifth and the Sixth Revisions of the International List of Causes of Death. Because of radical changes from the Fifth to the Sixth Revision, the death rates are not strictly comparable. Death rates for 1957 are based upon the Sixth Revision.

Death Rates by Marital Status, Age, and Sex; U. S., Annual Average for 1949-51

Source: D. Shurtleff, "Mortality and Marital Status," Public Health Reports, March 1955.

Age (in years)	Male					Female				
	Single	Married	Widowed	Divorced	Total ¹	Single	Married	Widowed	Divorced	Total ¹
Under 20 ²	3.4	1.6	2.0	2.3	3.4	2.6	1.0	4.8	1.6	2.5
20-24.....	2.2	1.5	5.7	3.4	1.9	1.2	.9	3.4	1.7	1.0
25-34.....	3.6	1.7	8.6	5.8	2.2	2.2	1.2	4.1	2.6	1.4
35-44.....	8.5	3.6	12.1	11.8	4.3	3.9	2.6	6.2	4.5	2.9
45-54.....	17.8	9.3	21.6	23.2	10.7	7.0	5.7	10.3	8.1	6.5
55-59.....	30.0	17.8	30.4	36.5	20.0	11.5	10.2	14.8	13.8	11.4
60-64.....	41.0	25.8	39.5	48.6	29.0	16.6	15.7	20.7	21.1	17.5
65-69.....	55.0	36.5	50.0	66.1	41.1	24.8	23.5	28.1	33.1	26.0
70-74.....	78.8	54.3	69.1	91.9	60.4	42.3	39.0	44.8	58.2	43.2
75 and over.....	137.3	100.3	139.0	173.3	119.4	103.6	76.0	106.2	129.2	101.6
All ages ³	5.4	12.1	70.5	26.1	11.1	3.9	5.8	41.1	8.8	8.3

¹ Includes deaths for which marital status was not stated. ² Includes deaths for which age was not stated. ³ Rates for "Total" and "Single" are based on deaths and population at ages 0-19 years. Rates for "Married," "Widowed," and "Divorced" are based on deaths and population at ages 15-19 years. NOTE: Rates are per 1,000 population in each specified group enumerated in the Census of April 1, 1950. Deaths among armed forces overseas are excluded.

Crude Death Rate for Selected Countries, 1938, 1953, 1955, 1957

Source: Statistical Office of the United Nations.

Country	Rate ¹				Country	Rate ¹			
	1938	1953	1955	1957		1938	1953	1955	1957
North America					Europe (cont.)				
Canada ²	9.7	8.6	8.2	8.3	Hungary.....	14.3	11.7	10.0	10.5
Costa Rica.....	17.7	11.7	10.5	10.1	Ireland.....	13.6	11.7	12.6	*
El Salvador.....	19.1	14.7	14.2	13.8	Italy.....	14.1	10.0	9.3	10.0
Mexico.....	22.9	15.9	13.7	*	Luxemburg.....	12.7	12.5	11.3	*
Nicaragua.....	14.5	10.2	9.2	*	Netherlands.....	8.5	7.7	7.6	7.5
Panama ³	14.2	9.4	9.3	9.7	Norway.....	9.9	8.5	8.5	8.6
Puerto Rico.....	18.7	8.1	7.2	*	Portugal.....	15.4	11.3	11.3	11.3
United States.....	10.6	9.6	9.3	9.6	Rumania.....	19.1	11.6	9.7	*
South America					Spain.....	19.3	9.7	9.4	9.8 ¹²
Chile.....	23.1	12.4	12.8	*	Sweden.....	11.5	9.7	9.5	9.9
Peru ⁴	16.2	11.8	6.5	*	Switzerland.....	11.6	10.2	10.1	10.0
Venezuela.....	18.3	9.9	10.3	*	United Kingdom.....	11.8	11.4	11.7	11.5
Europe					Asia				
Austria.....	14.0	12.0	12.2	*	Ceylon.....	21.0	10.7	10.8	*
Belgium.....	13.2	12.1	12.3	*	India ⁵	23.7	14.5 ¹³	11.7 ¹⁴	*
Bulgaria.....	13.7	9.2	9.0	*	Israel ⁷	8.1	6.3	5.8	6.2
Czechoslovakia.....	13.2	10.5	9.6	10.0	Japan ⁸	17.7	8.9	7.8	8.3
Denmark.....	10.3	9.0	8.7	*	Other				
Finland ⁶	12.8	9.6	9.3	9.4	Australia ⁹	9.6	9.1	8.9	8.8
France.....	15.8	13.1	12.2	12.0	New Zealand ¹⁰	9.7	8.8	9.0	9.3
Germany, West.....	11.4	11.2	11.0	11.3	U. of So. Africa ¹¹	9.5	8.6	8.5	*

¹ Number of deaths per 1,000 population. ² Excluding Yukon and Northwest Territories. ³ Excluding tribal Indians. ⁴ Excluding Indian jungle population. ⁵ Prior to 1951, data relate to Finnish Nationals in Finland. ⁶ Registration area only. ⁷ Jewish population only. ⁸ Japanese nationals in Japan only. ⁹ Excludes full-blooded aborigines. ¹⁰ Excluding Maoris. ¹¹ White population only (about 20% of total). ¹² Excluding deaths in Province of Valencia during last quarter of 1957. ¹³ Excluding Ajmer. ¹⁴ Excluding Bihar, Madhya Pradesh and Orissa. * Not available.

Transportation-Accident Death Rates, 1955-57

Source: National Safety Council.

Kind of transportation	1957			1955-57 average death rate ¹
	Passenger miles	Passenger deaths	Death rate ¹	
Passenger automobiles and taxis.....	1,000,000,000,000	25,700 ²	2.6	2.7
Buses.....	51,100,000,000	70	0.13	0.16
Railroad passenger trains.....	25,890,000,000	17	0.07	0.11
Scheduled air transport planes (domestic).....	26,250,000,000	31	0.12	0.47

¹ Per 100,000,000 passenger miles. ² Drivers of passenger automobiles are considered passengers.

One Accidental Death Every 6 Minutes in 1957

Source: National Safety Council.

The nation's 1957 accident totals can be figured at the following approximate rates:

Class of accident	One every		Class of accident	One every	
All accidents	Deaths.....	6 minutes	Workers off-job	Deaths.....	17 minutes
	Injuries.....	3 seconds		Injuries.....	13 seconds
Motor-vehicle	Deaths.....	14 minutes	Home	Deaths.....	19 minutes
	Injuries.....	23 seconds		Injuries.....	8 seconds
Work	Deaths.....	37 minutes	Public non-motor-vehicle	Deaths.....	30 minutes
	Injuries.....	16 seconds		Injuries.....	15 seconds

Motor-Vehicle Deaths by Type of Accident, 1913 to 1957

Source: National Safety Council.

Year	Deaths from collisions with—						Deaths from non-collision accidents*	Total deaths
	Pedestrians	Other motor vehicles	Rail-road trains	Street cars	Bi-cycles	Animal-drawn vehicle or animal	Fixed objects*	
1913.....	.....	.....	.....	.....	.....	.....	.....	4,200
1918.....	.....	.....	.....	.....	.....	.....	.....	10,700
1923.....	.....	.....	.....	.....	950	.....	.....	18,400
1928.....	11,420	4,310	2,140	570	.....	.....	540	28,000
1933.....	12,840	6,470	1,437	318	400	310	900	31,363
1938.....	12,850	8,900	1,490	165	720	170	940	32,582
1943.....	9,900	5,300	1,448	171	450	160	700	23,823
1948.....	9,950	10,200	1,474	83	500	100	1,000	32,259
1950.....	9,100	11,250	1,541	89	450	110	1,300	34,763
1953.....	8,700	12,600	1,506	26	450	100	1,500	37,955
1954.....	8,000	11,750	1,269	28	400	80	1,500	35,586
1955.....	8,200	13,000	1,490	15	450	100	1,600	38,426
1956.....	7,950	13,650	1,377	11	470	120	1,600	39,268
1957.....	7,850	13,450	1,313	10	480	100	1,650	38,500

* The proportion of deaths allocated to fixed-object collisions and noncollision accidents is different from that reported by most states. State reports generally indicate that many accidents involving no collision on the roadway are classified as fixed-object collisions because the motor vehicle collides with an object after leaving the roadway.

† The totals do not quite equal the sum of the various types because the estimates were generally made only to the nearest 10 deaths, and to the nearest 50 deaths for certain types.

Motor-Vehicle Traffic Deaths by States, 1956-57

Source: National Safety Council.

State	1956	Rate ¹	1957	Rate ¹	State	1956	Rate ¹	1957	Rate ¹
Alabama.....	976	9.4	925	8.6	Montana.....	267	8.5	210	6.7
Alaska.....	28	13.6 ²	31	15.0 ²	Nebraska.....	315	5.0	303	4.7
Arizona.....	488	10.3	462	9.0	Nevada.....	139	8.6	139	8.2
Arkansas.....	486	7.6	496	7.7	New Hampshire.....	96	4.3	94	4.0
California.....	3,804	6.4	3,691	5.9	New Jersey.....	772	3.4	833	3.7
Colorado.....	409	6.1	367	5.1	New Mexico.....	400	9.4	427	9.2
Connecticut.....	288	3.4	283	3.2	New York.....	2,200	5.2	2,191	5.0
Delaware.....	87	4.8	91	4.7	North Carolina.....	1,108	7.0	1,063	7.1
D. C.....	54	2.1	69	2.9	North Dakota.....	169	8.6	147	5.6
Florida.....	1,229	7.4	1,076	5.9	Ohio.....	2,023	5.6	2,044	5.5
Georgia.....	1,138	8.1	1,005	7.0	Oklahoma.....	683	6.9	704	7.0
Idaho.....	247	8.5	205	7.2	Oregon.....	423	5.7	467	6.3
Illinois.....	2,135	6.5	2,096	6.2	Pennsylvania.....	1,790	4.9	1,698	4.5
Indiana.....	1,222	6.2	1,172	5.8	Rhode Island.....	69	2.4	81	2.7
Iowa.....	700	6.2	690	6.8	South Carolina.....	718	9.0	715	8.8
Kansas.....	683	7.5	585	6.3	South Dakota.....	196	6.8	178	6.0
Kentucky.....	778	8.1	814	8.1	Tennessee.....	766	6.4	699	5.8
Louisiana.....	898	9.1	829	8.0	Texas.....	2,611	6.4	2,539	6.0
Maine.....	160	4.4	153	4.0	Utah.....	215	6.3	222	6.2
Maryland.....	550	5.6	552	5.4	Vermont.....	98	6.7	106	7.1
Massachusetts.....	555	3.6	519	3.3	Virginia.....	830	5.8	912	6.1
Michigan.....	1,746	6.1	1,537	5.3	Washington.....	533	5.1	548	5.2
Minnesota.....	640	5.2	685	5.3	West Virginia.....	438	7.5	478	7.9
Mississippi.....	561	7.9	525	7.4	Wisconsin.....	955	7.2	919	6.7
Missouri.....	1,132	6.4	996	5.5	Wyoming.....	173	8.6	157	7.7

¹ Number of deaths per 100,000,000 vehicle-miles. NOTE: Figures are per state traffic authorities and indicate place of accident rather than of death. ² Rates per 100,000 population.

Average Annual Accidental Death Rates, 1954-55

(Rates are per 100,000 population by place of residence)

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various reports by the National Office of Vital Statistics.

State	Accidents, total	Motor vehicles	Falls	Burns and confla- grations	Drown- ings	Fire- arms	Ma- chinery	Poison- ing by solids and liquids	Absorp- tion of poisonous gas	Water trans- port
Alabama.....	62.5	27.3	7.3	7.7	3.5	2.1	1.3	1.1	.3	1.5
Alaska.....	145.5	14.4	6.7	11.0	9.6	6.7	2.4	2.9	1.0	22.0
Arizona.....	73.5	36.1	7.0	5.9	5.2	1.9	1.0	1.9	.6	.3
Arkansas.....	65.3	24.7	8.2	8.7	3.7	2.8	2.2	.9	.3	1.3
California.....	54.4	27.0	7.9	3.3	3.0	.9	.8	1.6	.8	.8
Colorado.....	62.9	26.7	12.4	2.9	2.9	2.3	1.8	1.1	.5	1.6
Connecticut.....	46.0	14.2	15.1	2.6	2.7	.4	.6	1.0	1.0	1.0
Delaware.....	59.1	24.6	10.1	5.3	4.4	.7	1.5	1.4	.5	2.5
D. C.....	50.3	13.2	18.9	4.3	2.3	.3	.2	1.0	.3	.9
Florida.....	64.6	27.5	9.8	4.6	5.4	2.4	1.0	1.3	.7	1.7
Georgia.....	64.3	28.2	7.3	7.1	3.5	2.6	1.5	1.4	.4	1.2
Idaho.....	79.4	34.5	9.0	4.3	4.6	3.9	4.6	.9	.8	1.7
Illinois.....	50.3	20.7	11.9	3.6	2.7	1.2	1.2	.7	.8	.6
Indiana.....	61.9	25.9	15.7	4.4	2.7	1.3	1.3	.7	.8	.6
Iowa.....	62.9	23.7	17.2	3.6	2.5	1.0	3.0	.3	.5	.8
Kansas.....	71.9	29.5	13.4	5.3	2.6	1.6	2.1	.5	.9	.4
Kentucky.....	68.0	27.4	13.2	6.3	3.5	2.3	1.5	.9	.6	.6
Louisiana.....	60.2	22.2	8.7	6.7	5.3	2.0	1.5	.9	.3	2.9
Maine.....	58.0	18.4	12.6	5.5	4.2	1.6	1.5	.8	1.6	2.8
Maryland.....	50.2	18.7	11.5	4.4	3.1	1.0	.9	.8	.5	1.2
Massachusetts.....	54.8	13.1	25.9	3.5	2.7	.5	.6	.7	.8	.6
Michigan.....	57.1	28.3	11.4	3.2	3.1	.9	1.0	.5	.7	1.3
Minnesota.....	54.1	21.0	13.8	3.0	3.0	.9	2.1	.7	.9	1.3
Mississippi.....	63.1	23.3	6.9	9.9	4.5	3.3	1.5	1.0	.1	1.2
Missouri.....	66.9	25.1	16.8	5.0	2.4	2.1	1.9	.9	.5	.8
Montana.....	90.1	36.7	14.8	5.1	5.2	3.6	3.4	.9	2.2	1.6
Nebraska.....	62.4	24.6	14.1	3.6	2.6	1.4	2.9	.6	.4	.4
Nevada.....	93.9	47.1	10.2	4.9	4.5	3.8	.7	1.6	.7	.3
New Hampshire.....	52.8	17.2	16.1	4.6	3.6	.8	1.1	1.0	.6	.8
New Jersey.....	41.6	14.4	12.7	3.3	2.6	.4	.5	.5	1.0	.6
New Mexico.....	77.0	37.3	5.9	4.3	3.9	4.0	1.8	1.4	1.3	.5
New York.....	44.2	14.2	15.4	3.0	2.6	.5	.6	.5	1.1	.6
North Carolina.....	59.2	26.7	6.8	5.5	3.9	1.8	1.2	1.2	.3	1.4
North Dakota.....	63.0	25.8	11.5	3.3	3.6	2.2	3.9	.5	.9	.8
Ohio.....	55.0	23.2	15.1	3.5	2.2	.7	1.1	.6	1.1	.7
Oklahoma.....	68.1	26.9	11.5	5.5	3.6	2.2	1.4	.8	.9	.4
Oregon.....	64.2	25.8	9.6	3.9	4.2	1.9	2.7	.9	1.3	1.9
Pennsylvania.....	50.7	17.0	16.5	3.4	2.1	.8	1.1	.7	1.0	.5
Rhode Island.....	44.0	10.7	18.3	2.7	3.0	.4	.3	.9	.6	2.0
South Carolina.....	60.3	26.8	5.3	7.2	4.0	2.6	1.2	1.6	.3	1.2
South Dakota.....	67.9	27.5	11.7	3.3	4.0	2.4	3.6	.6	.9	.8
Tennessee.....	54.3	24.9	8.6	4.9	2.8	1.9	1.3	.8	.4	1.0
Texas.....	62.6	29.7	7.7	5.3	4.1	2.2	1.4	.9	.5	.7
Utah.....	59.4	25.9	10.3	1.9	2.6	2.9	1.4	.8	.4	.5
Vermont.....	55.4	18.3	14.8	3.2	4.2	1.4	2.3	.5	.8	1.9
Virginia.....	56.6	22.5	9.0	6.5	3.4	1.6	1.0	1.2	.4	1.2
Washington.....	58.8	20.1	12.6	4.1	4.2	1.3	1.4	1.1	1.5	1.6
West Virginia.....	59.7	19.8	10.1	5.2	3.6	2.6	1.8	.8	1.1	.6
Wisconsin.....	53.6	24.1	12.6	2.3	3.1	1.0	1.8	.5	.6	1.4
Wyoming.....	86.2	38.2	10.2	4.9	4.2	4.5	3.5	.7	2.5	.7
United States.....	56.4	22.8	12.3	4.4	3.1	1.4	1.2	.9	.8	.9

Hospital Facilities in the U. S., 1957

Source: American Hospital Association.

State	Total—all hospitals			State	Total—all hospitals		
	No. of hospitals	No. of beds	Admissions during year*		No. of hospitals	No. of beds	Admissions during year*
Alabama.....	128	22,661	387,910	Nebraska.....	112	12,411	208,083
Alaska.....	22	1,848	32,359	Nevada.....	18	1,759	40,287
Arizona.....	68	7,633	168,772	New Hampshire....	39	5,950	86,321
Arkansas.....	85	14,968	224,847	New Jersey.....	154	50,271	642,938
California.....	421	123,599	1,760,188	New Mexico.....	51	5,659	118,180
Colorado.....	98	16,903	287,167	New York.....	490	224,681	2,146,600
Connecticut.....	70	21,799	320,097	North Carolina....	180	32,366	612,639
Delaware.....	17	5,038	54,337	North Dakota.....	63	6,770	116,974
D. C.....	26	15,131	193,216	Ohio.....	254	74,832	1,174,033
Florida.....	161	26,451	559,700	Oklahoma.....	131	17,662	297,777
Georgia.....	143	27,761	466,494	Oregon.....	78	13,477	229,007
Idaho.....	51	3,923	92,869	Pennsylvania.....	337	107,726	1,489,982
Illinois.....	325	106,644	1,333,187	Rhode Island.....	22	9,068	106,632
Indiana.....	138	31,285	524,479	South Carolina....	78	14,178	287,885
Iowa.....	125	21,109	359,265	South Dakota.....	66	6,607	111,566
Kansas.....	152	16,976	315,428	Tennessee.....	153	28,164	462,575
Kentucky.....	133	22,945	398,833	Texas.....	555	59,817	1,331,387
Louisiana.....	135	24,191	478,543	Utah.....	38	4,609	99,767
Maine.....	57	9,314	115,918	Vermont.....	32	4,874	61,371
Maryland.....	82	29,980	324,012	Virginia.....	124	32,837	482,074
Massachusetts.....	209	67,080	702,222	Washington.....	135	22,792	419,192
Michigan.....	250	66,998	1,007,288	West Virginia.....	93	16,093	297,755
Minnesota.....	203	32,796	535,385	Wisconsin.....	195	30,948	588,206
Mississippi.....	105	14,259	248,440	Wyoming.....	31	3,835	59,582
Missouri.....	146	35,846	541,970	Total.....	6,840	1,560,539	23,025,123
Montana.....	61	6,015	121,384				

* Data estimated for nonreporting hospitals. Excludes newborn.

EXPECTATION OF LIFE

Expectation of Life and Mortality Rates, 1956

Source: Metropolitan Life Insurance Co. from abridged life tables prepared by U. S. Public Health Service.

Age, years	Expectation of Life in Years					Mortality Rate per 1,000				
	Total Persons	White		Nonwhite		Total Persons	White		Nonwhite	
		Male	Female	Male	Female		Male	Female	Male	Female
0.....	69.6	67.3	73.7	61.1	65.9	26.1	26.3	20.0	47.1	37.6
1.....	70.4	68.2	74.2	63.1	67.4	1.8	1.6	1.5	3.7	3.3
2.....	69.6	67.3	73.4	62.3	66.7	1.0	1.0	.9	1.8	1.6
3.....	68.6	66.3	72.4	61.4	65.8	.8	.8	.6	1.4	1.2
4.....	67.7	65.4	71.5	60.5	64.8	.7	.7	.6	1.0	1.0
5.....	66.7	64.4	70.5	59.6	63.9	.6	.6	.4	.9	.7
6.....	65.8	63.5	69.5	58.6	63.0	.5	.5	.4	.8	.6
7.....	64.8	62.5	68.6	57.7	62.0	.4	.5	.4	.7	.5
8.....	63.8	61.5	67.6	56.7	61.0	.4	.5	.3	.6	.5
9.....	62.9	60.6	66.6	55.7	60.1	.4	.4	.3	.6	.4
10.....	61.9	59.6	65.6	54.8	59.1	.4	.4	.3	.6	.4
11.....	60.9	58.6	64.6	53.8	58.1	.4	.4	.3	.7	.4
12.....	59.9	57.6	63.7	52.8	57.1	.5	.5	.3	.8	.5

Expectation of Life and Mortality Rates (Contd.)

Age, years	Expectation of Life in Years					Mortality Rate per 1,000				
	Total Persons	White		Nonwhite		Total Persons	White		Nonwhite	
		Male	Female	Male	Female		Male	Female	Male	Female
13.....	59.0	56.7	62.7	51.9	56.2	.5	.7	.3	.9	.5
14.....	58.0	55.7	61.7	50.9	55.2	.6	.8	.4	1.1	.6
15.....	57.0	54.8	60.7	50.0	54.2	.7	1.0	.5	1.2	.7
16.....	56.1	53.8	59.8	49.0	53.3	.9	1.1	.5	1.4	.7
17.....	55.1	52.9	58.8	48.1	52.3	1.0	1.3	.5	1.6	.9
18.....	54.2	51.9	57.8	47.2	51.3	1.1	1.4	.6	1.9	1.0
19.....	53.2	51.0	56.9	46.3	50.4	1.1	1.6	.6	2.2	1.1
20.....	52.3	50.1	55.9	45.4	49.4	1.2	1.7	.6	2.5	1.2
21.....	51.4	49.2	54.9	44.5	48.5	1.3	1.8	.6	2.8	1.4
22.....	50.4	48.3	54.0	43.6	47.6	1.4	1.9	.6	3.1	1.5
23.....	49.5	47.4	53.0	42.7	46.6	1.4	1.9	.6	3.2	1.7
24.....	48.6	46.4	52.0	41.9	45.7	1.4	1.8	.7	3.3	1.8
25.....	47.6	45.5	51.1	41.0	44.8	1.3	1.7	.7	3.4	1.9
26.....	46.7	44.6	50.1	40.1	43.9	1.3	1.6	.7	3.5	2.1
27.....	45.7	43.7	49.1	39.3	43.0	1.3	1.5	.7	3.6	2.2
28.....	44.8	42.7	48.2	38.4	42.1	1.3	1.5	.8	3.7	2.4
29.....	43.9	41.8	47.2	37.6	41.2	1.4	1.5	.8	3.9	2.5
30.....	42.9	40.9	46.2	36.7	40.3	1.5	1.6	.9	4.0	2.7
31.....	42.0	39.9	45.3	35.9	39.4	1.5	1.7	.9	4.1	2.9
32.....	41.0	39.0	44.3	35.0	38.5	1.6	1.7	1.0	4.4	3.1
33.....	40.1	38.1	43.4	34.2	37.6	1.7	1.8	1.1	4.7	3.5
34.....	39.2	37.1	42.4	33.3	36.7	1.9	2.0	1.2	5.1	3.9
35.....	38.3	36.2	41.4	32.5	35.9	2.0	2.1	1.3	5.6	4.4
36.....	37.3	35.3	40.5	31.7	35.0	2.2	2.3	1.4	6.1	4.9
37.....	36.4	34.4	39.6	30.9	34.2	2.4	2.5	1.5	6.6	5.3
38.....	35.5	33.4	38.6	30.1	33.4	2.5	2.7	1.6	6.9	5.6
39.....	34.6	32.5	37.7	29.3	32.6	2.8	3.0	1.8	7.2	5.8
40.....	33.7	31.6	36.7	28.5	31.8	3.0	3.4	1.9	7.5	5.9
41.....	32.8	30.8	35.8	27.7	30.9	3.3	3.7	2.1	7.8	6.1
42.....	31.9	29.9	34.9	26.9	30.1	3.7	4.1	2.3	8.3	6.5
43.....	31.0	29.0	34.0	26.1	29.3	4.0	4.6	2.6	9.0	7.1
44.....	30.1	28.1	33.1	25.4	28.5	4.4	5.1	2.8	9.9	7.8
45.....	29.3	27.3	32.1	24.6	27.8	4.9	5.7	3.1	10.8	8.7
46.....	28.4	26.4	31.2	23.9	27.0	5.4	6.3	3.4	11.8	9.6
47.....	27.6	25.6	30.3	23.1	26.3	5.9	7.0	3.7	12.8	10.4
48.....	26.7	24.8	29.5	22.4	25.5	6.4	7.7	4.0	13.7	11.1
49.....	25.9	23.9	28.6	21.7	24.8	7.0	8.5	4.3	14.6	11.8
50.....	25.1	23.1	27.7	21.1	24.1	7.6	9.3	4.6	15.6	12.4
51.....	24.3	22.4	26.8	20.4	23.4	8.3	10.2	5.0	16.7	13.2
52.....	23.4	21.6	26.0	19.7	22.7	9.0	11.2	5.5	18.0	14.2
53.....	22.7	20.8	25.1	19.1	22.0	9.9	12.2	5.9	19.6	15.6
54.....	21.9	20.1	24.2	18.4	21.4	10.8	13.4	6.5	21.5	17.3
55.....	21.1	19.3	23.4	17.8	20.7	11.8	14.6	7.1	23.6	19.2
56.....	20.4	18.6	22.6	17.3	20.1	12.8	16.0	7.8	25.8	21.1
57.....	19.6	17.9	21.7	16.7	19.5	14.0	17.4	8.5	27.9	22.8
58.....	18.9	17.2	20.9	16.2	19.0	15.2	19.1	9.3	29.9	24.0
59.....	18.2	16.5	20.1	15.7	18.4	16.5	20.9	10.2	31.9	24.8
60.....	17.5	15.9	19.3	15.2	17.9	17.8	22.8	11.2	33.8	25.5
61.....	16.8	15.2	18.5	14.7	17.4	19.3	24.8	12.2	35.9	26.3
62.....	16.1	14.6	17.7	14.2	16.8	21.0	27.0	13.6	38.4	27.8
63.....	15.4	14.0	17.0	13.8	16.3	23.1	29.4	15.3	41.7	30.4
64.....	14.8	13.4	16.2	13.3	15.8	25.5	32.1	17.2	45.5	33.9
65.....	14.2	12.9	15.5	12.9	15.3	28.2	35.0	19.5	49.9	37.9
66.....	13.6	12.3	14.8	*	*	30.9	38.0	21.8	*	*
67.....	13.0	11.8	14.1	*	*	33.6	41.1	24.1	*	*
68.....	12.4	11.3	13.5	*	*	36.1	44.1	26.3	*	*
69.....	11.9	10.7	12.8	*	*	38.6	47.2	28.4	*	*

* Not shown because of deficiencies in basic data.

Expectation of Life in the United States, 1850-1956

Source: Statistical Bulletin of the Metropolitan Life Insurance Company. Compiled from various publications of the National Office of Vital Statistics and the Bureau of the Census.

Calendar period	Age								
	0	10	20	30	40	50	60	70	80
White Males									
1850*	38.3	48.0	40.1	34.0	27.9	21.6	15.6	10.2	5.9
1890*	42.50	48.45	40.66	34.05	27.37	20.72	14.73	9.35	5.40
1900-1902†	48.23	50.59	42.19	34.88	27.74	20.76	14.35	9.03	5.10
1901-1910†	49.32	50.86	42.39	34.80	27.55	20.59	14.17	8.96	5.07
1909-1911†	50.23	51.32	42.71	34.87	27.43	20.39	13.98	8.83	5.09
1919-1921†	56.34	54.15	45.60	37.65	29.86	22.22	15.25	9.51	5.47
1920-1929†	57.85	54.65	45.84	37.51	29.35	21.65	14.75	9.17	5.26
1929-1931	59.12	54.96	46.02	37.54	29.22	21.51	14.72	9.20	5.26
1930-1939	60.62	55.86	46.77	38.06	29.57	21.71	14.86	9.29	5.30
1939-1941	62.81	57.03	47.76	38.80	30.03	21.96	15.05	9.42	5.38
1949-1951	66.31	58.98	49.52	40.29	31.17	22.83	15.76	10.07	5.88
1956	67.3	59.6	50.1	40.9	31.6	23.1	15.9	10.3	6.0
White Females									
1850*	40.5	47.2	40.2	35.4	29.8	23.5	17.0	11.3	6.4
1890*	44.46	49.62	42.03	35.36	28.76	22.09	15.70	10.15	5.75
1900-1902†	51.08	52.15	43.77	36.42	29.17	21.89	15.23	9.59	5.50
1901-1910†	52.54	52.89	44.39	36.75	29.28	21.86	15.09	9.52	5.43
1909-1911†	53.62	53.57	44.88	36.96	29.26	21.74	14.92	9.38	5.35
1919-1921†	58.53	55.17	46.46	38.72	30.94	23.12	15.93	9.94	5.70
1920-1929†	60.62	56.41	47.46	39.20	30.97	22.97	15.70	9.71	5.46
1929-1931	62.67	57.65	48.52	39.99	31.52	23.41	16.05	9.98	5.63
1930-1939	64.52	58.98	49.71	40.90	32.24	23.96	16.44	10.19	5.76
1939-1941	67.29	60.85	51.38	42.21	33.25	24.72	17.00	10.50	5.88
1949-1951	72.03	64.26	54.56	45.00	35.64	26.76	18.64	11.68	6.59
1956	73.7	65.6	55.9	46.2	36.7	27.7	19.3	12.2	6.6
Nonwhite Males‡									
1900-1902†	32.54	41.90	35.11	29.25	23.12	17.34	12.62	8.33	5.12
1901-1910†	32.57	40.73	33.78	27.97	22.23	16.64	11.87	8.29	5.43
1909-1911†	34.05	40.65	33.46	27.33	21.57	16.21	11.67	8.00	5.53
1919-1921†	47.14	45.99	38.36	32.51	26.53	20.47	14.74	9.58	5.83
1920-1929†	46.90	44.86	36.76	30.65	24.55	18.83	13.66	9.12	5.54
1929-1931	47.55	44.27	35.95	29.45	23.36	17.92	13.15	8.78	5.42
1930-1939	50.06	46.56	38.05	31.11	24.65	18.98	14.13	9.53	6.01
1939-1941	52.26	48.34	39.52	32.05	25.06	19.06	14.37	10.11	6.58
1949-1951	58.91	52.96	43.73	35.31	27.29	20.25	14.91	10.74	7.07
1956	61.1	54.8	45.4	36.7	28.5	21.1	15.2	11.5	8.7
Nonwhite Females‡									
1900-1902†	35.04	43.02	36.89	30.70	24.37	18.67	13.60	9.62	6.48
1901-1910†	35.65	42.52	36.17	30.09	23.81	18.08	13.17	9.52	6.50
1909-1911†	37.67	42.84	36.14	29.61	23.34	17.65	12.78	9.22	6.05
1919-1921†	46.92	44.54	37.15	31.48	25.60	19.76	14.69	10.25	6.58
1920-1929†	47.95	44.86	36.98	30.93	24.67	18.85	14.01	10.01	6.49
1929-1931	49.51	45.33	37.22	30.67	24.30	18.60	14.22	10.38	6.90
1930-1939	52.62	48.29	39.90	32.88	26.11	20.09	15.28	10.88	7.18
1939-1941	55.56	50.75	42.04	34.40	27.19	20.95	16.10	11.82	8.02
1949-1951	62.70	56.17	46.77	38.02	29.82	22.67	16.95	12.29	8.15
1956	65.9	59.1	49.4	40.3	31.8	24.1	17.9	13.6	9.9

* Massachusetts only; white and nonwhite combined, the latter being about one percent of the total. † Original Death Registration States. ‡ Death Registration States of 1920. § Data for periods 1900-1902 to 1929-1931 and 1939-1941 relate to Negroes only.

Expectation of Life by Age and Sex; Selected Countries

Source: Statistical Office of the United Nations; "Population Index" published by the Office of Population Research, Princeton University, and the Population Association of America; and The U. S. Public Health Service.

		Average future lifetime in years at stated age											
Country	Period	Males						Females					
		0	1	10	20	40	60	0	1	10	20	40	60
North America													
United States													
White	1955	67.3	68.2	59.6	50.1	31.7	16.0	73.6	74.2	65.6	55.8	36.7	19.3
Nonwhite	1955	61.2	63.2	54.9	45.5	28.6	15.4	65.9	67.5	59.2	49.6	32.0	18.1
Canada	1950-52	66.3	68.3	60.2	50.8	32.5	16.5	70.8	72.3	64.0	54.4	35.6	18.6
Mexico	1940	37.9	44.4	45.4	37.6	24.8	13.4	39.8	46.2	47.9	40.0	26.6	13.5
Puerto Rico	1939-41	45.1	50.4	48.6	40.1	30.1	17.0	46.9	51.5	50.0	41.8	32.4	19.3
South America													
Chile	1952	49.8	56.8	51.4	42.7	27.3	14.0	53.9	60.6	55.7	47.1	31.3	16.4
Venezuela	1941-42	45.8	51.2	48.2	39.9	26.2	14.0	47.6	52.5	49.7	41.6	28.5	15.8
Europe													
Austria	1949-51	61.9	65.9	58.0	48.7	30.7	15.1	67.0	70.1	62.2	52.6	34.2	17.3
Belgium	1946-49	62.0	65.3	57.4	48.0	30.6	15.5	67.3	69.7	61.7	52.3	34.2	17.5
Czechoslovakia	1929-32	51.9	59.9	54.0	45.3	29.0	14.4	55.2	62.0	56.1	47.4	31.0	15.4
Denmark	1946-50	67.8	70.0	61.7	52.2	33.8	17.1	70.1	71.7	63.3	53.6	35.0	17.9
England and Wales	1955	67.5	68.5	59.9	50.3	31.4	15.0	73.0	73.6	65.0	55.2	36.1	18.6
Finland	1951-55	63.4	64.7	56.5	47.0	29.2	14.1	69.8	70.9	62.5	52.8	34.2	16.9
France	1950-51	63.6	66.1	57.9	48.4	30.4	15.1	69.3	71.2	63.0	53.4	35.0	18.1
Germany (Fed. Rep.) ^a	1949-51	64.6	67.8	59.8	50.3	32.3	16.2	68.5	71.0	62.8	53.2	34.7	17.5
Greece ⁴	1926-30	49.1	53.2	52.4	44.3	29.8	16.0	50.9	55.1	54.5	46.4	32.4	17.5
Hungary	1955 ¹	64.7	68.3	60.1	50.6	32.3	15.9	68.7	71.4	63.2	53.5	34.7	17.5
Iceland	1941-50	66.1	67.4	59.5	50.5	34.3	18.2	70.3	71.3	63.2	54.0	36.5	19.6
Ireland	1950-52	64.5	66.9	58.8	49.3	31.3	15.4	67.1	68.8	60.6	51.2	33.3	16.8
Italy	1930-32 ²	53.8	59.7	55.5	46.8	30.4	15.2	57.5	62.6	57.9	49.1	32.3	16.2
Netherlands	1953-55	71.0	71.8	63.4	53.7	34.8	17.8	73.9	74.3	65.7	56.0	36.7	18.9
Norway	1946-50	69.3	70.7	62.6	53.3	35.2	18.4	72.7	73.6	65.2	55.6	37.0	19.5
Poland	1952-53	58.6	64.3	56.8	47.6	30.1	14.7	64.2	69.0	61.4	52.0	34.0	17.3
Portugal	1955-56	58.8	63.9	57.9	48.5	30.5	14.8	63.8	68.6	62.8	53.3	34.8	17.6
Scotland	1956	66.0	67.2	58.7	49.1	30.3	14.4	71.2	72.0	63.3	53.5	34.5	17.4
Spain	1950	58.8	63.1	56.5	47.5	36.7	15.2	63.5	67.6	61.2	52.0	34.6	17.7
Sweden	1951-55	70.5	71.1	62.7	53.1	34.4	17.4	73.4	73.7	65.1	55.4	36.2	18.6
Switzerland	1948-53	66.4	67.8	59.6	50.2	31.9	15.7	70.9	71.9	63.6	53.9	35.0	17.8
U.S.S.R. (total)	1954-55	61	*	*	*	*	*	67	*	*	*	*	*
Asia													
China (Taiwan)	1936-41	41.1	47.6	45.6	37.2	22.7	11.3	45.7	51.5	50.8	42.4	27.7	14.2
India	1941-50	32.5	39.0	39.0	33.0	20.5	10.1	31.7	37.3	39.5	32.9	21.1	11.3
Israel (Jews)	1956	68.3	69.9	61.5	52.3	33.9	16.9	71.1	72.7	64.2	54.5	35.4	18.1
Japan ⁶	1955	63.9	65.6	58.2	48.8	31.2	15.3	68.4	70.0	62.5	53.0	35.1	18.6
Korea	1938	47.2	51.1	49.9	41.6	26.2	12.8	50.6	54.5	53.2	45.1	30.0	14.8
Thailand	1947-48	48.7	52.0	47.9	39.8	25.6	12.7	51.9	55.2	50.9	42.7	28.4	14.2
Africa													
Egypt	1936-38	35.7	42.1	46.9	39.8	26.1	13.3	41.5	48.1	54.5	46.1	30.8	16.3
U. of So. Africa (Europeans)	1945-47	63.8	65.5	57.7	48.4	30.4	15.3	68.3	69.6	61.7	52.3	34.1	18.0
Oceania													
Australia	1946-48	66.1	67.3	59.0	49.6	31.2	15.4	70.6	71.5	63.1	53.5	34.9	18.1
New Zealand (Europeans)	1950-52	68.3	69.0	60.6	51.2	32.7	16.2	72.4	72.9	64.4	54.6	35.6	18.5

* Not available. ¹ Provisional. ² Figures given for females cover period 1935-37. ³ Excluding Saar. ⁴ Excluding Judecanese. ⁵ Japanese nationals only.

CRIME

Distribution of Arrests by Sex, 1957

Source: Federal Bureau of Investigation.

(Data in this table are from reports furnished the FBI by 1,473 cities over 2,500 in population. This represents a total population of 40,176,369 based on the 1950 census.)

Offense charged	Males	Per cent	Females	Per cent	Total	Per cent
Criminal homicide:						
Murder and nonnegligent manslaughter.....	1,634	.1	373	.2	2,007	.1
Manslaughter by negligence.....	1,134	.1	104	*	1,238	.1
Robbery.....	11,354	.6	466	.2	11,820	.6
Aggravated assault.....	19,201	1.0	4,065	1.8	23,266	1.1
Other assaults.....	73,999	4.0	7,750	3.5	81,749	3.9
Burglary—breaking or entering.....	50,195	2.7	1,203	.5	51,398	2.5
Larceny—theft.....	88,898	4.8	13,578	6.2	102,476	5.0
Auto theft.....	28,328	1.5	793	.4	29,121	1.4
Embezzlement and fraud.....	13,834	.7	2,334	1.1	16,168	.8
Stolen property; buying, receiving, etc.....	3,560	.2	309	.1	3,869	.2
Forgery and counterfeiting.....	7,063	.4	1,225	.6	8,288	.4
Rape.....	4,780	.3	...	...	4,780	.2
Prostitution and commercialized vice.....	3,906	.2	8,788	4.0	12,694	.6
Other sex offenses.....	16,064	.9	4,904	2.2	20,968	1.0
Narcotic drug laws.....	6,143	.3	1,134	.5	7,277	.3
Weapons; carrying, possessing, etc.....	15,992	.9	872	.4	16,864	.8
Offenses against family and children.....	20,433	1.1	2,011	.9	22,444	1.1
Liquor laws.....	35,910	1.9	7,437	3.4	43,347	2.1
Driving while intoxicated.....	96,099	5.2	5,000	2.3	101,099	4.9
Disorderly conduct.....	201,562	10.9	39,605	18.0	241,167	11.7
Drunkenness.....	768,849	41.6	63,419	28.8	832,268	40.2
Vagrancy.....	62,783	3.4	6,737	3.1	69,520	3.4
Gambling.....	45,364	2.5	5,098	2.3	50,462	2.4
Suspicion.....	76,612	4.1	8,033	3.7	84,645	4.1
ALL other offenses.....	195,028	10.6	34,714	15.8	229,742	11.1
TOTAL ARRESTS, 1957.....	1,848,725	100.0	219,952	100.0	2,068,677	100.0

* Less than one-tenth of one per cent.

Arrests by Age Groups, 1957*

Source: Federal Bureau of Investigation.

Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests
Under 15.....	98,927	18.....	51,932	22.....	50,108	30-34.....	247,734	50 & over...	342,956
15.....	45,342	19.....	48,645	23.....	48,234	35-39.....	241,888	Not known...	619
16.....	55,454	20.....	45,295	24.....	50,769	40-44.....	215,398	TOTAL.....	2,068,677
17.....	54,094	21.....	50,751	25-29.....	234,649	45-49.....	185,882		

* Data from same sources as table above: 1,473 cities over 2,500.

Estimated Number of Major Crimes in the U. S., 1948-57*

Source: Federal Bureau of Investigation.

Crime	1948	1950	1952	1955	1956	1957
Murder and nonnegligent manslaughter.....	7,620	7,020	7,210	6,850	6,970	6,920
Manslaughter by negligence.....	5,390	5,330	5,650	5,610	5,650	5,740
Rape.....	16,180	16,580	17,240	19,100	20,300	21,080
Robbery.....	54,990	53,230	58,140	57,490	56,770	61,410
Aggravated assault.....	77,310	80,950	87,930	92,740	96,430	100,110
Burglary—breaking or entering.....	377,640	411,980	442,760	492,530	525,720	590,020
Larceny—theft.....	978,000	1,044,160	1,202,270	1,360,980	1,587,590	1,721,170
Auto theft.....	169,540	170,780	215,310	227,150	263,720	289,950
Total major crimes.....	1,686,670	1,790,030	2,036,510	2,262,450	2,563,150	2,796,400

* Estimated total major crimes, both urban and rural.

Sentenced Federal Prisoners Received from Courts, 1945-1957

Fiscal years ending June 30

Source: Federal Bureau of Prisons.

Offense	1945	1948	1950	1952	1954	1955	1956	1957
Counterfeiting.....	47	64	260	154	88	96	54	80
Drug laws: Marihuana.....	454	588	878	654	509	457	325	414
Narcotics.....	680	855	1,151	1,278	1,366	1,237	1,189	1,273
Embezzlement and fraud.....	340	531	609	558	445	487	453	515
Forgery.....	626	954	1,274	1,099	1,484	1,618	1,572	1,507
Immigration laws.....	3,996	3,200	3,463	4,548	7,277	4,952	1,771	1,556
Income tax.....	15	103	164	184	203	237	241	251
Juvenile delinquency.....	911	677	658	695	829	734	825	963
Kidnaping.....	20	36	41	42	41	37	19	34
Liquor laws.....	2,988	1,838	2,304	2,247	2,143	2,294	2,183	2,376
Robbery.....	45	68	92	120	193	252	212	211
Theft from interstate commerce.....	475	430	270	307	320	342	318	310
Transportation, etc., of stolen motor vehicle.....	1,072	2,612	2,486	2,605	2,838	2,989	2,835	3,020
White-slave traffic.....	209	221	185	173	242	240	206	195
Govt. reservation, D. C., high seas and terr. cases	986	1,069	1,145	1,369	1,487	1,458	1,365	1,592
Other.....	1,748	1,868	2,104	1,961	1,851	1,973	1,882	1,941
National-security offenses:								
Selective Service Acts.....	2,613	236	136	281	342	214	136	194
Other national-defense and security laws.....	2,150	319	130	157	167	152	132	108
Military court-martial cases: Army.....	1,793	851	606	416	639	219	952	166
Navy.....	32	267	107	48	33	25	30	27
TOTAL ALL OFFENSES.....	21,200	16,787	18,063	18,896	22,497	20,013	16,700	16,733

Methods of Execution in the United States

Source: Information Please Almanac questionnaires to the states.

State	Method	State	Method
Alabama	Electrocution	New Mexico	Lethal gas
Arizona	Lethal gas	New York	Electrocution
Arkansas	Electrocution	North Carolina	Lethal gas
California	Lethal gas	North Dakota	No death penalty
Colorado	Lethal gas	Ohio	Electrocution
Connecticut	Electrocution	Oklahoma	Lethal gas ¹
Delaware	No death penalty	Oregon	Lethal gas ²
D. C.	Electrocution	Pennsylvania	Electrocution
Florida	Electrocution	Rhode Island	No death penalty ⁵
Georgia	Electrocution	South Carolina	Electrocution
Idaho	Hanging	South Dakota	Electrocution
Illinois	Electrocution	Tennessee	Electrocution
Indiana	Electrocution	Texas	Electrocution
Iowa	Hanging	Utah	Hanging
Kansas	Hanging		or shooting ³
Kentucky	Electrocution	Vermont	Electrocution
Louisiana	Electrocution	Virginia	Electrocution
Maine	No death penalty	Washington	Hanging
Maryland	Lethal gas	West Virginia	Electrocution
Massachusetts	Electrocution	Wisconsin	No death penalty
Michigan	No death penalty	Wyoming	Lethal gas
Minnesota	No death penalty	U. S. (Fed. Gov't.) ..	(⁴)
Mississippi	Lethal gas	Alaska	No death penalty
Missouri	Lethal gas	American Samoa	Hanging
Montana	Hanging	Canal Zone	Hanging
Nebraska	Electrocution	Guam	Hanging
Nevada	Lethal gas	Hawaii	No death penalty
New Hampshire	Hanging	Puerto Rico	No death penalty
New Jersey	Electrocution	Virgin Islands	Hanging

¹ Electrocution until gas chamber is provided. ² A measure to abolish death sentence will be voted on in the next general election. ³ Condemned man has choice. ⁴ Method shall be that used by state in which sentence is imposed. If state does not have death penalty, Federal judge shall prescribe method for carrying out death sentence. ⁵ However, a person who commits murder while under sentence of imprisonment for life shall be hanged. NOTE: Method shown with each state is maximum penalty for murder and certain other crimes. In most states having capital punishment, jury or judge can specify whether sentence shall be death or life imprisonment.

EDUCATION

Elementary and Secondary Public School Statistics, 1956-57

Source: Information Please Almanac Questionnaire.

Note: The number of schools includes rural and one-room school houses. The number of pupils includes only full-time students. The average yearly expenditure is based on average daily attendance.

State	Elementary Kindergarten-Grade 8			Secondary Grades 9-12			Average yearly expenditure per pupil	Teachers, Elementary & Secondary Combined	
	No. Schools	No. Pupils	No. Teachers	No. Schools	No. Pupils	No. Teachers		minimum salary	maximum salary
Alabama ¹	1,235	459,702	14,047 ²	1,346	284,773	10,744 ²	\$165.77 ³	\$3,170.00 ^{4,5}	\$3,506.00 ^{4,5}
Alaska.....	151	35,066	(³⁰)	42	6,932	(³⁰)	(¹⁹)	4,500.00	9,100.00
Arizona.....	472	179,373	6,419	83	46,590	2,148	351.39	3,300.00	7,300.00
Arkansas.....	1,368	259,802	7,822	682	160,069	5,971	142.00 ³	2,261.00 ⁴	2,627.00 ⁴
California.....	4,380 ⁶	2,175,568 ⁸	62,579 ⁸	703 ⁸	649,181 ⁸	34,362 ⁶	346.24	4,200.00 ⁸	9,000.00 ⁸
Colorado.....	1,086	252,363	7,855	381	69,089	5,261	321.58	2,200.00 ⁸	7,200.00 ⁸
Connecticut ¹	768	302,487	9,988	154	117,661	5,474	309.80 ⁷	2,900.00	8,500.00
Delaware ¹	142	40,939	1,583	48	26,452	1,291	383.60 ⁸	3,600.00	6,700.00
D. C. ⁸	127	70,225	2,077	39 ⁹	35,764	1,729	355.69	3,900.00	6,500.00
Florida ¹	1,224	514,866	15,937	472	311,132	11,487	247.20 ³	3,200.00	6,900.00
Georgia.....									
Idaho.....	528 ⁹	11,019 ¹⁰	3,613 ¹¹	127	37,965 ¹²	1,440	275.77	2,352.00	5,940.00
Illinois.....	1,772 ¹³	1,231,611	41,460	620 ¹⁴	381,476	17,885	370.67	4,130.09 ⁴	4,170.56 ⁴
Indiana.....	1,557	688,982	21,141	705	212,535	8,835	289.34	1,950.00	7,000.00 ¹⁴
Iowa.....	5,083	429,753	17,252	878	133,315	8,928	297.30 ¹⁵	3,360.00 ⁴	4,578.00 ⁴
Kansas.....	2,568 ¹⁶	285,935	12,744	603	99,848	6,289	322.57 ¹⁶	3,425.00 ⁴	4,093.00 ⁴
Kentucky.....	3,272 ¹⁷	502,141	16,595	465 ¹⁷	181,104	8,186	186.00	1,500.00	3,500.00 ¹⁴
Louisiana ⁸	877	492,520	14,609	593 ¹⁷	131,232	8,269	295.28		4,383.63 ¹⁸
Maine.....	1,109	140,752	5,160	228	39,023	2,184	237.74	3,066.66 ⁴	3,825.48 ⁴
Maryland ⁸	793	317,385	10,533	232	189,651	8,604	311.28	4,543.00 ⁴	4,673.00 ⁴
Massachusetts.....	1,741	525,952 ⁹	19,602	331	255,941	12,520 ⁵	275.57 ⁷	3,300.00	8,500.00
Michigan ⁸	4,559	946,432	32,465	815	505,678	20,698	584.54	(¹⁹)	(¹⁹)
Minnesota.....	3,161	378,244	14,134	661	234,212	12,086	333.00	1,575.00	7,000.00
Mississippi.....	2,164	446,491	10,671	715	98,740	5,984	151.65	2,297.72 ⁴	2,826.49 ⁴
Missouri.....	2,330	581,837	19,204	560	175,758	7,663	286.54 ³	3,646.00 ⁴	4,162.00 ⁴
Montana.....	1,130	100,582	4,499	175	32,703	1,812	365.00	3,316.00	5,726.00
Nebraska.....	4,151	188,030	9,035	480	75,160	4,031	285.30 ³	1,600.00 ⁶	6,500.00 ^{6,14}
Nevada.....	178 ⁸	44,865	1,587	36 ^{8,17}	11,996	549	361.12	4,000.00 ²⁰	5,196.00 ²⁰
New Hampshire.....	424 ³	71,904	2,501	81 ⁸	22,054	995	276.51 ³	2,400.00	7,860.00
New Jersey.....	1,550	679,000	24,000	300	202,000	13,000	345.99 ⁷	3,000.00 ²¹	(¹⁹)
New Mexico.....	556	153,858	7,107	177 ⁹	42,451 ⁹	2,639 ⁹	315.00	2,800.73 ⁴	4,781.07 ⁴
New York.....	4,096	1,950,717	58,581	1,396 ²⁶	987,721	48,105	459.00 ³	3,500.00 ²²	5,643.00 ^{23,18}
North Carolina.....	2,099	808,640	25,283	912	230,847	9,002	186.07 ³	3,266.41 ⁴	3,445.94 ⁴
North Dakota.....	2,694	95,373	4,977	374	31,630	1,962	298.33 ⁴		3,194.76 ¹⁸
Ohio ⁸	3,000	1,161,772	37,934	1,141	540,957	24,204	(²⁵)	4,446.00 ^{4,6}	5,017.00 ^{4,6}
Oklahoma.....	2,139	317,566	(²⁴)	934	190,241	(²⁴)	251.94	2,100.00	(²⁵)
Oregon.....	1,087	262,812	11,014	223	87,663	4,350	384.16	3,000.00	8,300.00
Pennsylvania.....	4,830	1,087,762 ²⁶	40,763	990	708,105 ²⁶	32,532	335.00 ¹⁶	3,400.00 ²⁷	5,800.00 ²⁷
Rhode Island.....	283	79,992	2,885	70	41,638	2,119	291.46 ⁷	3,000.00	7,690.00
South Carolina.....	1,114	394,313	11,942	395	177,628	7,158	192.00	(¹⁹)	(¹⁹)
South Dakota.....	2,838	106,465	5,684	267	33,486	2,134	321.75 ³	(¹⁹)	(¹⁹)
Tennessee.....				3,283 ²⁸	764,889 ²⁸	26,667 ²⁸	175.83		3,174.33 ^{3,2}
Texas.....	4,077	1,420,951	45,469	1,647	390,922	21,510	270.10	(¹⁹)	4,501.00
Utah.....	392	126,583	3,717	145	79,471	2,795	257.86	3,000.00	5,088.00
Vermont.....	556	49,034	1,963 ²⁹	82	18,654	904 ²⁹	240.55 ⁷	2,500.00 ⁸	3,400.00 ⁸
Virginia.....	2,123	562,398	18,489	465	213,300	10,166	212.45	2,348.00 ²⁰	5,050.00 ²⁰
Washington.....	1,127 ⁸	354,531	12,413	413	176,954 ⁹	7,320	319.31		4,543.64 ¹⁸
West Virginia.....	2,881	295,899	10,291	370	162,699	6,441	206.79	1,935.00	5,455.00
Wisconsin.....	4,528	456,243	17,427	443	172,502	8,133	314.15	1,800.00	7,500.00 ¹⁴
Wyoming.....	333	55,648	2,253	86	17,067	1,056	400.00	2,700.00	7,000.00

¹ Elementary Grades 1-6; Secondary Grades 7-12. Number of Secondary schools includes combined Elementary and Secondary schools. ² Teaching positions. ³ Current non-capital expenses. ⁴ Average annual salary. Elementary and/or Secondary teachers. ⁵ Includes principals and supervisors. ⁶ Figures for 1957-1958. ⁷ Based on average daily membership. ⁸ Elementary grades Kindergarten-Grade 6. ⁹ Includes Junior High Schools. ¹⁰ Grades 1-8. ¹¹ Includes 728 Junior High School teachers. ¹² Grades 9-12 only. ¹³ School districts. ¹⁴ And more, dependent upon experience, preparation, and local board. ¹⁵ Includes Elementary and High School students in High School districts. \$318.21 for Elementary students in Rural districts. ¹⁶ Estimated. ¹⁷ Includes combined Elementary and High Schools. ¹⁸ Average for all teachers. ¹⁹ Data not available. ²⁰ Based on average minimum and average maximum salary figures are not available. Median salary for both divisions is \$4,880.00. ²¹ Legal minimum salary. ²² State 20,683. ²³ Maximum determined by local board. ²⁴ Includes Grades 7-8 when designated as part of the division. ²⁵ Figures for 1958-1959. ²⁶ Includes Grades 1-12, there is no separation of divisions. ²⁷ In addition there are 156 elementary divisions, total is 1,657. ²⁸ No breakdown of teachers in Elementary and Secondary divisions.

State Compulsory School Attendance Laws

Source: U. S. Office of Education.

State	Enactment ¹	Age limits	State	Enactment ¹	Age limits
Alabama	1915	7-16	Nebraska	1887	7-16
Arizona	1899	8-16	Nevada	1873	7-18
Arkansas	1909	7-16	New Hampshire	1871	6-16
California	1874	8-16	New Jersey	1875	7-16
Colorado	1889	8-16	New Mexico	1891	6-17
Connecticut	1872	7-16	New York	1874	7-16
Delaware	1907	7-16	North Carolina	1907	7-16
D. C.	1864	7-16	North Dakota	1883	7-17
Florida	1915	7-16	Ohio	1877	6-18
Georgia	1916	7-16	Oklahoma	1907	7-18
Idaho	1887	7-16	Oregon	1889	7-18
Illinois	1883	7-16	Pennsylvania	1895	8-17
Indiana	1897	7-16	Rhode Island	1883	7-16
Iowa	1902	7-16	South Carolina ³	.....	.....
Kansas	1874	7-16	South Dakota	1883	7-16
Kentucky	1896	7-16	Tennessee	1905	7-16
Louisiana	1910	7-15	Texas	1915 ⁴	7-16
Maine	1875	7-15	Utah	1890	6-18
Maryland	1902	7-16	Vermont	1867	7-16
Massachusetts	1852	7-16	Virginia	1908	7-16
Michigan	1871	6-16	Washington	1871	8-16
Minnesota	1885	7-16	West Virginia	1897	7-16
Mississippi ²	.....	.....	Wisconsin	1879	7-16
Missouri	1905	7-16	Wyoming	1876	7-16
Montana	1883	8-16			

¹ Date of enactment of 1st compulsory school attendance law. ² Mississippi repealed its compulsory attendance law in 1956. ³ South Carolina repealed its compulsory attendance law in 1955. ⁴ A compulsory school attendance law was contained in a law of 1873 establishing free public schools. However, the provision was omitted in superseding legislation passed in 1876.

Enrollment in Full-time Day Schools, 1909-54*

Source: U. S. Office of Education.

Type of school	1909-1910	1919-1920	1929-1930	1939-1940	1949-1950	1953-1954
Kindergartens: Public	293,970 ¹	481,266	723,443	594,647	1,034,203	1,474,000
Nonpublic	52,219 ¹	29,683	54,456	57,341	133,000	317,000
Residential schools for exceptional children	(²)	(²)	5,164 ³	5,777	4,459 ³	8,000 ³
Elementary schools: Public	16,604,821	18,897,661	20,555,150	18,237,451	18,370,490	21,071,800
Nonpublic	1,506,218	1,455,878	2,255,430	2,095,938	2,574,777 ⁹	3,274,840
Residential schools for exceptional children	71,307	99,234 ⁴	124,153 ³	55,954	48,894 ⁵	53,900
Other ⁶	(²)	(²)	(²)	59,547	35,682	57,403
Total kindergartens and elementary schools	18,528,535	20,963,722	23,717,796	21,106,655	22,201,505	26,256,943
Secondary schools: Public high schools	915,061	2,200,389	4,399,422	6,601,444	5,706,734	6,290,245
Nonpublic high schools	117,400	213,920	341,158	457,768	672,362 ⁹	747,323
Residential schools for exceptional children	4,005	4,500 ⁴	4,388	9,727	9,784 ⁵	11,200 ³
Other ⁷	78,932	81,367	59,287	54,070	38,162	49,457
Total secondary schools	1,115,398	2,500,176	4,804,255	7,123,009	6,427,042	7,098,225
Higher education: Publicly controlled ⁸	116,560	315,382	532,647	796,531	1,354,902	1,356,431
Privately controlled ⁸	188,655	282,498	568,090	697,672	1,304,119	1,158,231
Total higher education	355,215	597,880	1,100,737	1,494,203	2,659,021	2,514,712

¹ 1911-12. ² Data not available. ³ 1926-27. ⁴ 1917-18. ⁵ Distribution by control estimated before 1939. ⁶ 1940-49. ⁷ Elementary grades in college and teacher-training elementary schools. ⁸ Secondary grades in college and teacher-training secondary schools. ⁹ 1945-46. ^{*} Estimated. ^{*} Data for subsequent years not available.

Statistics of State School Systems, 1947-56

Source: U. S. Office of Education.

Years	Enrollment					High-school graduates		Current expenditure per pupil in average daily attendance	Expenditure for textbooks free to pupils
	Total	Kindergarten through grade 8		Grades 9 through 12 and postgraduate		Boys	Girls		
1947-1948	23,944,532	9,429,268	8,861,959	2,747,061	2,906,244	507,649	565,529	179.43	37,553,364
1948-1949	24,476,658	9,707,391	9,110,863	2,759,298	2,899,106	499,984	557,960	197.65	43,481,000
1949-1950	25,111,000	10,018,000	9,387,000	2,812,000	2,895,000	505,394	558,050	208.83	48,076,000
1951 1952	26,563,000	10,649,000	10,032,000	2,885,000	2,997,000	501,723	553,863	244.24	53,677,000
1953-1954*	28,836,000	11,609,000	10,937,000	3,085,000	3,205,000	544,575	584,966	264.76	72,660,000
1955-1956*	31,163,000	12,507,000	11,783,000	3,371,000	3,502,000	606,495	645,529	295.00	.....

* Data for 1955-56 are preliminary; number of boys and girls in elementary and secondary schools in 1953-54 and 1955-56 are estimated from total enrollment.

Federal Government Funds for Education, 1956-57

Source: U. S. Office of Education.

Classification of programs by department or agency	Amount	Classification of programs by department or agency	Amount
Elementary & secondary education.....	\$ 656,632,000	In-service training of civilian personnel.....	\$ 3,485,000
Department of Health, Education & Welfare	210,027,000	Department of Health, Education & Welfare	1,585,000
Department of Agriculture.....	320,658,000	Department of Commerce.....	9,000
Department of Defense.....	24,375,000	Department of Defense.....	1,884,000
Department of the Interior.....	89,527,000	Federal Deposit Insurance Corporation.....	7,000
Department of the Treasury.....	23,000	Education of Merchant Marine and military personnel for defense.....	34,497,000
Atomic Energy Commission.....	4,097,000	Department of Commerce.....	2,837,000
Canal Zone.....	3,615,000	Department of Defense.....	28,333,000
District of Columbia.....	4,310,000	Department of the Treasury.....	3,327,000
Higher education.....	1,032,524,000	Research in educational institutions.....	133,328,000
Department of Health, Education & Welfare	196,839,000	Department of Health, Education & Welfare	11,555,000
Department of Defense.....	14,740,000	Department of Agriculture.....	78,723,000
Department of the Treasury.....	25,000	Atomic Energy Commission.....	26,620,000
Veterans Administration.....	813,955,000	National Advisory Committee for Aeronautics	580,000
National Science Foundation.....	6,965,000	National Science Foundation.....	15,268,000
Adult education.....	87,220,000	Tennessee Valley Authority.....	582,000
Department of Health, Education & Welfare	70,706,000	International education.....	50,139,000
Department of the Interior.....	898,000	Department of Health, Education & Welfare	24,000
Department of Justice.....	530,000	Department of Commerce.....	500,000
Department of Labor.....	3,399,000	Department of Labor.....	2,500,000
Canal Zone.....	32,000	Department of State.....	47,115,000
Federal Civil Defense Administration.....	707,000	TOTAL.....	\$1,997,825,000
National Science Foundation.....	10,948,000		

Special Schools & Classes for Exceptional Children, 1952-53¹

Source: U. S. Office of Education.

Type ²	No. of—		Enrollment		No. of Teachers ⁴
	States reporting ³	Places reporting	Elementary schools	Secondary schools	
Mentally retarded.....	48	1,244	84,878	28,687	7,067
Speech-defective.....	49	1,087	254,179	52,568	2,256
Crippled.....	45	596	15,924	1,889	1,498
Hard-of-hearing.....	46	497	9,680	2,252	480
Partially seeing.....	39	408	6,544	1,470	647
Special health problems.....	40	330	10,166	1,289	868
Deaf.....	34	185	3,446	489	479
Blind.....	19	67	658	181	95
Mentally gifted.....	15	27	3,683	19,233	926
TOTAL.....	...	....	389,158	108,058	14,316

¹ Public schools only; continental U. S. These are the latest data available. ² Excludes truant, delinquent and maladjusted children; home-and-hospital-bound children; exceptional children enrolled in residential schools. ³ Includes D. C. ⁴ Includes both full-time and part-time teachers. A teacher serving more than one type of exceptional child is reported only with the type to which she devotes the major portion of her time.

High-school and College Graduates, 1900-56

(Public and private schools)

Source: U. S. Office of Education.

Year of graduation	HIGH SCHOOL			COLLEGE*		
	Men	Women	Total	Men	Women	Total
1900.....	38,075	56,808	94,883	22,173	5,237	27,410
1910.....	63,676	92,753	156,429	28,762	8,437	37,199
1920.....	123,684	187,582	311,266	31,980	16,462	48,622
1929-30.....	300,376	366,528	666,904	73,615	48,869	122,484
1940-41.....	578,718	642,757	1,221,475	106,859	79,065	185,924
1947-48.....	562,863	627,046	1,189,909	175,456	95,563	271,019
1948-49.....	564,000	629,000	1,193,000	263,554	101,874	365,428
1949-50.....	570,700	629,000	1,199,700	328,841	103,217	432,058
1950-51.....	562,500	619,300	1,181,800	278,240	104,306	382,546
1951-52.....	569,200	627,300	1,196,500	225,981	104,005	329,986
1952-53†.....	572,800	625,500	1,198,300	199,793	103,256	303,049
1953-54.....	612,500	663,600	1,276,100	186,528	104,297	290,825
1954-55.....	615,300	666,100	1,281,400	182,463	102,675	285,138
1955-56†.....	680,000	736,000	1,416,000	198,233	110,579	308,812

* 1st-level degree in given field of study. † High-school graduates are estimated.

Enrollment in Vocational Classes, 1957*

Source: U. S. Office of Education.

Type of program	Evening classes	Part-time classes	Day classes	All classes
Agriculture.....	270,130	46,478	458,242	774,850
Home economics.....	552,753	65,137	890,050	1,507,940
Trades and industry.....	492,883	197,438	261,440	951,761
Distributive occupations.....	203,795	76,108	.....	279,903
Practical nursing.....	3,591†	.....	3,510†	7,101
Total.....	1,523,152	385,161	1,613,242	3,521,555

* Provisional figures, subject to final review of state reports. † Extension. ‡ Preparatory.

Number Surviving Through College Entrance per 1,000 Pupils

Source: U. S. Office of Education.

Grade or year	1931-1932	1934-1935	1937-1938	1938-1939	1939-1940	1940-1941	1941-1942	1942-1943	1943-1944	1944-1945	1945-1946	1946-1947
Elementary: Fifth.....	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Sixth.....	929	953	954	955	963	968	952	954	972	952	959	954
Seventh.....	884	892	901	908	916	910	905	909	914	929	944	945
Eighth.....	818	842	850	853	846	836	834	847	870	858	875	919
High School: I.....	780	803	811	796	781	781	789	807	827	848	872	872
II.....	651	711	679	655	673	697	698	713	745	748	766	775
III.....	546	610	519	532	552	566	581	604	630	650	662	641
IV.....	481	512	428	444	476	507	514	539	557	549	552	583
Graduates.....	432	467	398	419	450	481	488	505	524	522	524	553
Year of graduation.....	1939	1942	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Enter college.....	154	129	*	*	*	*	*	205	218	234	266	283

* Because of veteran students, it is not possible to calculate retention rates.

White and Negro School Statistics, 1953-54*

(Public elementary and secondary schools in 17 Southern states and the District of Columbia)

Source: U. S. Office of Education.

State	Enrollment		Instructional staff ¹		Average annual salary of instructional staff		Expenditure ² per pupil in A.D.A. ³	
	White	Negro	White	Negro	White	Negro	White	Negro
Alabama.....	460,507	243,140	15,764	7,912	\$2,834	\$2,681	\$111.99	\$105.02
Arkansas.....	315,111	99,844	10,907	2,902	2,360	2,008	99.08	71.78
Delaware.....	47,237	9,968	2,109	411	.....	.....	.....	.....
D. C.....	49,106	60,029	1,770	1,941	4,998	4,614	240.27	186.71
Florida.....	487,698	140,779	17,836	5,300	3,836	3,613	175.92	160.61
Georgia.....	533,508	274,123	19,848	8,576	.....	.....	.....	.....
Kentucky.....	553,051	38,517	18,843	1,422	.....	.....	.....	.....
Louisiana.....	343,914	208,577	13,228	6,342	.....	.....	165.08	122.07
Maryland.....	338,308	89,984	12,691	3,022	.....	.....	.....	.....
Mississippi.....	263,478	263,930	9,609	6,777	2,261	1,302	98.15	43.17
Missouri.....	637,705	65,962	23,564	2,034	.....	.....	132.46	124.85
North Carolina.....	683,284	284,782	23,971	8,944	3,335	3,406	.....	.....
Oklahoma.....	446,989	36,111	17,521	1,615	3,265	3,346	161.57	165.88
South Carolina.....	304,908	234,529	11,219	7,181	.....	.....	.....	.....
Tennessee.....	598,247	118,048	20,329	3,771	.....	.....	.....	.....
Texas.....	1,388,828	215,465	50,717	7,697	.....	.....	.....	.....
Virginia.....	523,165	172,112	19,252	5,868	3,076	3,104	.....	.....
West Virginia.....	426,345	25,646	15,437	983	.....	.....	.....	.....
TOTAL.....	8,401,389	2,581,546	304,615	82,698	.....	.....	.....	.....

¹ Includes supervisors, principals, teachers, etc. ² For instruction. ³ Average daily attendance. * Latest data available.

Degrees Granted by Institutions of Higher Education, 1956-57

(Aggregate United States¹)

Source: U. S. Office of Education.

Field of study	Bachelor's and first professional		Second level (master's, except first professional)		Doctor's	
	Men	Women	Men	Women	Men	Women
Agriculture.....	5,340	150	934	19	279	10
Architecture.....	1,433	60	199	9	3	.....
Biological sciences.....	10,724	3,144	1,432	369	991	112
Business & commerce.....	42,849	3,911	3,147	123	93	.....
Education.....	23,275	54,447	16,455	14,517	1,241	292
Engineering.....	31,130	81	5,217	16	595	1
English & journalism.....	7,870	10,128	1,246	1,009	277	77
Fine & applied arts.....	5,470	6,315	1,460	927	194	52
Foreign languages & literature.....	1,724	2,598	474	406	168	47
Health professions.....	14,815	8,260	880	505	143	7
Dentistry, D.D.S. & D.M.D. only..	3,011	27	.....	.....	.....	.....
Medicine, M.D. only.....	6,432	353	.....	.....	.....	.....
Nursing.....	50	5,700	8	302	.....	.....
Pharmacy.....	3,181	361	112	5	61	2
Other.....	2,141	1,819	760	198	82	5
Home economics.....	69	4,545	13	468	14	32
Law.....	8,559	273	435	21	30	1
Mathematical subjects.....	3,826	1,720	777	188	236	13
Physical sciences.....	11,321	1,613	2,483	221	1,603	71
Chemistry (excl. biochemistry)...	5,297	1,294	913	134	955	48
Physics.....	2,623	122	797	28	439	14
Other.....	3,401	197	773	59	209	9
Psychology.....	3,525	2,666	763	332	460	90
Religion.....	6,886	1,412	925	189	232	14
Social sciences.....	31,012	13,153	3,562	990	998	100
Economics.....	6,214	664	556	50	227	9
History.....	8,161	3,531	913	343	282	32
Political science or government..	4,765	1,109	467	68	149	7
Sociology.....	2,852	3,531	292	223	118	16
Other.....	9,020	4,318	1,334	306	222	36
TOTAL ²	222,738	117,609	41,332	20,623	7,817	939

¹ Includes continental U. S. plus outlying parts. ² Includes studies not listed.

School Enrollment, 5 to 34 Years Old,
October 1955 to October 1957

Source: U. S. Bureau of the Census.

Sex and age	October 1955		October 1956		October 1957	
	Number enrolled	% enrolled	Number enrolled	% enrolled	Number enrolled	% enrolled
MALE						
5 and 6 years.....	2,821,000	78.1	2,839,000	77.1	2,963,000	78.3
7 to 13 years.....	10,725,000	99.2	11,179,000	99.1	11,584,000	99.5
14 to 17 years.....	4,097,000	88.6	4,275,000	89.1	4,646,000	91.1
18 and 19 years.....	752,000	42.5	809,000	45.1	780,000	43.3
20 to 24 years.....	686,000	18.1	830,000	20.6	897,000	21.3
25 to 29 years.....	371,000	7.0	466,000	8.9	493,000	9.5
30 to 34 years.....	123,000	2.1	154,000	2.7	146,000	2.6
TOTAL, 5 to 34 years...	19,573,000	54.9	20,552,000	56.3	21,509,000	57.5
FEMALE						
5 and 6 years.....	2,700,000	78.1	2,758,000	78.2	2,866,000	79.0
7 to 13 years.....	10,304,000	99.1	10,767,000	99.4	11,121,000	99.5
14 to 17 years.....	3,873,000	85.2	4,138,000	87.3	4,421,000	87.8
18 and 19 years.....	480,000	22.5	598,000	27.4	629,000	28.1
20 to 24 years.....	324,000	6.1	362,000	6.8	439,000	8.2
25 to 29 years.....	105,000	1.8	100,000	1.7	111,000	1.9
30 to 34 years.....	68,000	1.1	78,000	1.2	70,000	1.1
TOTAL, 5 to 34 years...	17,853,000	47.0	18,801,000	48.7	19,657,000	50.0
TOTAL						
5 and 6 years.....	5,520,000	78.1	5,597,000	77.6	5,829,000	78.6
7 to 13 years.....	21,028,000	99.2	21,946,000	99.3	22,705,000	99.5
14 to 17 years.....	7,970,000	86.9	8,413,000	88.2	9,067,000	89.5
18 and 19 years.....	1,232,000	31.5	1,407,000	35.4	1,499,000	34.9
20 to 24 years.....	1,010,000	11.1	1,192,000	12.8	1,336,000	14.0
25 to 29 years.....	475,000	4.2	566,000	5.1	604,000	5.5
30 to 34 years.....	192,000	1.6	232,000	1.9	216,000	1.8
TOTAL, 5 to 34 years...	37,426,000	50.8	39,353,000	52.3	41,166,000	53.6

NOTE: Figures include children enrolled in kindergarten.

Estimated Public and Private School Enrollment,
By Type of School, 1957-58

Source: U. S. Office of Education.

Type of school	Enrollment	Type of school	Enrollment
Kindergarten Through Grade 8		Higher Education	
Public schools.....	26,037,000	Universities, colleges, professional schools, including junior colleges and normal schools....	3,450,000
Private and parochial schools.....	4,466,000		
Federal schools for Indians.....	26,000		
Federal schools under P.L. 874 ¹	20,000		
Other schools ²	121,000		
Total, kindergarten through grade 8.....	30,670,000		
Grades 9 Through 12		Other Schools	
Public schools.....	7,399,000	Private commercial schools.....	500,000
Private and parochial schools.....	942,000	Nurse-training schools (not affiliated with colleges and universities).....	91,000
Federal schools for Indians.....	11,000	Total other schools.....	591,000
Federal schools under P.L. 874 ¹	1,000		
Other schools ²	71,000	Grand total.....	43,135,000
Total, grades 9 through 12.....	8,424,000		
Total, kindergarten through grade 12.....	39,094,000		

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

¹ Includes only "schools operated on post by a Federal agency." ² Includes model and practice schools in teacher training institutions, subcollegiate departments of colleges, and residential schools for exceptional children.

Academic Degree Abbreviations

Source: *American Universities and Colleges*, 1956 pub. by American Council on Education.

A.B. Bachelor of Arts	E.Met. Engineer of Metallurgy
Ae.E. Aeronautical Engineer	G.N. Graduate Nurse
A.M. Master of Arts	G.Ph. Graduate in Pharmacy
A.M.T. Master of Arts in Teaching	J.D. Doctor of Jurisprudence
B.A. Bachelor of Arts	J.S.D. Doctor of Science of Law
B.Ag. Bachelor of Agriculture	L.H.D. Doctor of Humane Letters
B.App.Arts Bachelor of Applied Arts	Litt.M. Master of Letters
B.Arch. Bachelor of Architecture	LL.B. Bachelor of Laws
B.B.A. Bachelor of Business Administration	LL.D. Doctor of Laws
B.B.S. Bachelor of Business Science	LL.M. Master of Laws
B.C.E. Bachelor of Civil Engineering	M.A. Master of Arts
B.Ch.E. Bachelor of Chemical Engineering	M.Aero.E. Master of Aeronautical Engineering
B.D. Bachelor of Divinity	M.B.A. Master of Business Administration
B.Dr.Art Bachelor of Dramatic Art	M.C.E. Master of Civil Engineering
B.E. Bachelor of Education, Bachelor of Engineering or Bachelor of Expression	M.C.S. Master of Commercial Science
B.E.E. Bachelor of Electrical Engineering	M.D. Doctor of Medicine
B.F.A. Bachelor of Fine Arts	M.E. Mechanical Engineer
B.J. Bachelor of Journalism	M.Ed. Master of Education
B.L. Bachelor of Letters	Med.Sc.D. Doctor of Medical Science
B.L.S. Bachelor of Library Science	M.Eng. Mining Engineer
B.Litt. Bachelor of Literature	M.F. Master of Forestry
B.Med. Bachelor of Medicine	M.F.A. Master of Fine Arts
B.Mus. Bachelor of Music	M.Int.Med. Master of Internal Medicine
B.N. Bachelor of Nursing	M.L.S. Master of Library Science
B.Pharm. Bachelor of Pharmacy	M.M. Master of Music
B.Ph. Bachelor of Philosophy	M.M.E. Master of Mechanical Engineering or Master of Music Education
B.R.E. Bachelor of Religious Education	M.Mus. Master of Music
B.S. Bachelor of Science	M.N. Master of Nursing
B.Th. Bachelor of Theology	M.P.A. Master of Public Administration
C.E. Civil Engineer	M.P.H. Master of Public Health
Chem.E. Chemical Engineer	M.R.E. Master of Religious Education
D.C.E. Doctor of Civil Engineering	M.S. Master of Science
D.C.S. Doctor of Commercial Science	M.S.W. Master of Social Work
D.D. Doctor of Divinity	M.Th. Master of Theology
D.D.S. Doctor of Dental Surgery	O.D. Doctor of Optometry
D.M.D. Doctor of Dental Medicine	Phar.D. Doctor of Pharmacy
D.O. Doctor of Osteopathy	Ph.C. Pharmaceutical Chemist
D.M.S. Doctor of Medical Science	Ph.D. Doctor of Philosophy
D.P.A. Doctor of Public Administration	Ph.G. Graduate in Pharmacy
D.P.H. Doctor of Public Health	Ph.M. Master of Philosophy
D.R.E. Doctor of Religious Education	Sc.D. Doctor of Science
D.S.W. Doctor of Social Welfare	S.J.D. Doctor of Juridical Science
D.V.M. Doctor of Veterinary Medicine	S.Sc.D. Doctor of Social Science
Ed.D. Doctor of Education	S.T.B. Bachelor of Sacred Theology
E.E. Electrical Engineer	S.T.D. Doctor of Sacred Theology
E.M. Engineer of Mines	S.T.M. Master of Sacred Theology

Academic Costume: Colors Associated with Fields

Agriculture	Maize	Library Science	Lemon
Arts and Letters	White	Medicine	Green
Commerce & Accountancy	Drab	Music	Pink
Dentistry	Lilac	Oratory	Silver gray
Economics	Copper	Pharmacy	Olive green
Education	Light blue	Philosophy	Dark blue
Engineering	Orange	Physical Education	Sage green
Fine Arts, Architecture	Brown	Public Health	Salmon pink
Forestry	Russet	Science	Golden yellow
Humanics	Crimson	Theology	Scarlet
Law	Purple	Veterinary Science	Gray

Accredited U. S. Colleges and Universities

Spring Semester, 1958

Only schools fully accredited by at least one of the six regional accrediting associations are listed. The number of students is for matriculated undergraduate and graduate students who are working for a degree.

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Abilene Christian College; Abilene, Tex. (1906).....	Don H. Morris.....	2,204 C	Ch. of Christ ⁴
Adams State College; Alamosa, Colo. (1921).....	Fred J. Plachy.....	823 C	State
Adelphi College; Garden City, N. Y. (1856).....	Paul D. Eddy.....	3,774 C	Private
Agnes Scott College; Decatur, Ga. (1889).....	Wallace M. Alston.....	594 F	Presbyterian ⁴
Akron, University of; Akron, Ohio (1870).....	Norman P. Auburn.....	4,178 C	City
Alabama, University of; University, Ala. (1831).....	Frank A. Rose.....	12,151 C	State
Alabama A & M College; Normal, Ala. (1875).....	J. F. Drake.....	1,050 C	State
Alabama College; Montevallo, Ala. (1856).....	Howard M. Phillips.....	722 C	State
Alabama Polytechnic Institute; Auburn, Ala. (1872).....	Ralph B. Draughon.....	7,791 C	State
Alabama State Teachers College; Florence, Ala. (1872).....	E. B. Norton.....	1,748 C	State
Alabama State Teachers College; Livingston, Ala. (1835).....	D. P. Culp.....	601 C	State
Alabama State Teachers College; Troy, Ala. (1887).....	C. B. Smith.....	1,182 C	State
Alaska, University of; College, Alaska (1922).....	E. N. Patty.....	554 C	Territory
Albany State College; Albany, Ga. (1903).....	William H. Dennis, Jr.....	523 C	State
Albertus Magnus College; New Haven, Conn. (1925).....	Sister Marie Louise.....	275 F	Catholic ⁴
Albion College; Albion, Mich. (1835).....	William W. Whitehouse.....	1,303 C	Methodist ⁴
Albright College; Reading, Pa. (1856).....	Harry V. Masters.....	721 C	Evan. Un. Breth. ⁴
Alcorn A & M College; Lorman, Miss. (1871).....	John D. Boyd.....	620 C	State
Alfred University; Alfred, N. Y. (1836) ²⁴	M. Ellis Drake.....	1,227 C	Private
Allegheny College; Meadville, Pa. (1815).....	Lawrence L. Pelletier.....	1,060 C	Methodist ⁴
Allen University; Columbia, S. C. (1870).....	Frank R. Veal.....	860 C	A. M. E.
Alliance College; Cambridge Springs, Pa. (1912).....	A. P. Coleman.....	214 C	Private
Alma College; Alma, Mich. (1886).....	Robert D. Swanson.....	650 C	Presbyterian
Alverno College; Milwaukee, Wis. (1890).....	Sister M. Augustine.....	800 F	Catholic ⁴
American International College; Springfield, Mass. (1885).....	John F. Hines.....	1,617 C	Private
American University; Washington, D. C. (1893).....	Hurst R. Anderson.....	4,288 C	Methodist
Amherst College; Amherst, Mass. (1821).....	Charles W. Cole.....	1,050 M	Private
Anderson College & Theological Seminary; Anderson, Ind. (1917).....	Robert H. Reardon.....	936 C	Church of God
Anna Maria College for Women; Paxton, Mass. (1946).....	Sister Irene Marie.....	213 F	Catholic ⁴
Annhurst College; South Woodstock, Conn. (1941).....	Mother Anne Emilienne.....	111 F	Catholic ⁴
Antioch College; Yellow Springs, Ohio (1852).....	Samuel B. Gould.....	1,118 C	Private
Appalachian State Teachers College; Boone, N. C. (1903).....	William H. Plemmons.....	1,800 C	State
Aquinas College; Grand Rapids, Mich. (1922).....	Msgr. A. F. Bukowski.....	686 C	Catholic
Arizona, University of; Tucson, Ariz. (1885).....	Richard A. Harvill.....	9,109 C	State
Arizona State College; Flagstaff, Ariz. (1899).....	J. Lawrence Walkup.....	1,048 C	State
Arizona State College; Tempe, Ariz. (1885).....	Grady Gammage.....	7,974 C	State
Arkansas, University of; Fayetteville, Ark. (1871).....	John T. Caldwell.....	5,740 C	State
Arkansas A & M College; College Heights, Ark. (1909).....	Horace E. Thompson.....	967 C	State
Arkansas A, M & Normal College; Pine Bluff, Ark. (1873).....	Lawrence A. Davis.....	1,191 C	State
Arkansas Polytechnic College; Russellville, Ark. (1909).....	J. W. Hull.....	950 C	State
Arkansas State College; Jonesboro, Ark. (1909).....	Carl R. Reng.....	2,350 C	State
Arkansas State Teachers College; Conway, Ark. (1907).....	Silas D. Snow.....	1,319 C	State
Art Center School; Los Angeles, Calif. (1930).....	Edward A. Adams.....	643 C	Private
Asbury College; Wilmore, Ky. (1890) ⁷	Z. T. Johnson.....	875 C	Private
Ashland College; Ashland, Ohio (1878).....	Glenn L. Clayton.....	769 C	Brethren ⁴
Assumption College; Worcester, Mass. (1904).....	V. Rev. A. H. Desautels.....	208 M ⁵	Catholic ⁴
Athens College; Athens, Ala. (1822).....	Perry B. James.....	398 C	Methodist
Atlanta University System:			
Atlanta University; Atlanta, Ga. (1865).....	Rufus E. Clement.....	699 C	Private
Morehouse College; Atlanta, Ga. (1867).....	Benjamin E. Mays.....	739 M	Private
Spelman College; Atlanta, Ga. (1881) ⁷	Albert E. Manley.....	467 F	Baptist ⁴
Atlantic Christian College; Wilson, N. C. (1902).....	Arthur D. Wenger.....	985 C	Disc. of Christ ⁴
Atlantic Union College; South Lancaster, Mass. (1882).....	L. M. Stump.....	484 C	7th Day Adven.
Augsburg College & Theological Seminary; Minneapolis (1869).....	Bernhard M. Christensen.....	752 C	Lutheran
Augustana College; Rock Island, Ill. (1860).....	Conrad Bergendoff.....	1,146 C	Lutheran
Augustana College; Sioux Falls, S. Dak. (1860).....	Lawrence M. Stavig.....	1,302 C	Lutheran
Aurora College; Aurora, Ill. (1893).....	Theodore P. Stephens.....	670 C	Adven. Christ.
Austin College; Sherman, Tex. (1849).....	John D. Moseley.....	604 C	Presbyterian
Austin Peay State College; Clarksville, Tenn. (1927).....	Halbert Harvill.....	1,190 C	State
Abson Institute; Babson Park, Mass. (1919).....	Gordon M. Trim.....	600 M	Private
Baker University; Baldwin, Kans. (1856).....	Wm. J. Scarborough.....	478 C	Methodist ⁴
Baldwin-Wallace College; Berea, Ohio (1845).....	A. B. Bonds, Jr.....	1,314 C	Methodist
Ball State Teachers College; Muncie, Ind. (1918).....	John R. Emens.....	4,633 C	State
Barat College of the Sacred Heart; Lake Forest, Ill. (1919).....	Mother Margaret Burke.....	345 F	Catholic ⁴
Barber-Scotia College; Concord, N. C. (1867).....	L. S. Cozart.....	203 C	Presbyterian

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Bard College; Annandale-on-Hudson, N. Y. (1860).....	James H. Case, Jr.....	231 C	Private
Barnard College; New York, N. Y. (1889).....	Millicent C. McIntosh...	1,305 F	Private
Barry College; Miami, Fla. (1940).....	Rev. Mother M. Gerald..	512 F ⁶	Catholic ⁴
Bates College; Lewiston, Maine (1864).....	Charles F. Phillips.....	817 C	Private
Baylor University; Waco, Houston & Dallas, Tex. (1845).....	William R. White.....	4,538 C	Baptist
Beaver College; Jenkintown, Pa. (1853).....	Raymon Kistler.....	624 F	Presbyterian ⁴
Belhaven College; Jackson, Miss. (1883).....	McFerran Crowe.....	228 C	Presbyterian
Bellarmine College; Louisville, Ky. (1950).....	Rt. Rev. Msgr. A. F. Horrigan	1,025 M ⁵	Catholic
Belmont Abbey College; Belmont, N. C. (1876).....	V. Rev. Cuthbert E. Allen	550 M ⁵	Catholic ⁴
Beloit College; Beloit, Wls. (1846).....	Miller Upton.....	995 C	Congregational ⁴
Benedict College; Columbia, S. C. (1870) ⁷	J. A. Bacotts.....	664 C	Baptist ⁴
Bennett College; Greensboro, N. C. (1873).....	Willa B. Player.....	457 F	Methodist ⁴
Bennington College; Bennington, Vt. (1925).....	William C. Fels.....	325 F ⁶	Private
Berea College; Berea, Ky. (1855).....	Francis S. Hutchins.....	1,129 C	Private
Berry College; Mount Berry, Ga. (1902).....	John R. Bertrand.....	576 C	Private
Bethany College; Bethany, W. Va. (1840).....	Perry E. Gresham.....	594 C	Disc. of Christ ⁴
Bethany College; Lindsborg, Kans. (1881).....	Robert A. L. Mortvedt...	328 C	Lutheran
Bethany-Nazarene College; Bethany, Okla. (1909).....	Roy H. Cantrell.....	990 C	Nazarene
Bethel College; McKenzie, Tenn. (1842).....	Roy N. Baker.....	490 C	Presbyterian
Bethel College; North Newton, Kans. (1887).....	D. C. Wedel.....	465 C	Mennonite ⁴
Bethune-Cookman College; Daytona Beach, Fla. (1904).....	Richard V. Moore.....	672 C	Methodist
Birmingham-Southern College; Birmingham, Ala. (1856).....	Henry K. Stanford.....	1,032 C	Methodist
Bishop College; Marshall, Tex. (1881).....	M. K. Curry, Jr.....	511 C	Baptist
Black Hills Teachers College; Spearfish, S. Dak. (1883).....	Russell E. Jonas.....	675 C	State
Blackburn College; Carlinville, Ill. (1857).....	Robert P. Ludlum.....	348 C	Presbyterian ⁴
Blue Mountain College; Blue Mountain, Miss. (1873).....	Lawrence T. Lowrey.....	282 F ⁶	Baptist
Bluefield State College; Bluefield, W. Va. (1895).....	Leroy B. Allen.....	404 C	State
Bluffton College; Bluffton, Ohio (1900).....	Lloyd L. Ramseyer.....	313 C	Mennonite ⁴
Boston College; Chestnut Hill, Mass. (1863).....	V. Rev. Michael P. Walsh	7,477 C	Catholic ⁴
Boston University; Boston, Mass. (1839).....	Harold C. Case.....	14,574 C	Methodist ⁴
Bowdoin College; Brunswick, Maine (1794).....	James S. Coles.....	761 M	Private
Bowling Green State University; Bowling Green, Ohio (1910).....	Ralph W. McDonald.....	4,564 C	State
Bradley University; Peoria, Ill. (1897).....	Harold P. Rodes.....	2,984 C	Private
Brandeis University; Waltham, Mass. (1948).....	Abram L. Sachar.....	1,224 C	Private ²⁶
Brenau College; Gainesville, Ga. (1878).....	Josiah Crudup.....	301 F	Private
Brescia College, Owensboro, Ky. (1927).....	Sister Ambrose Martin..	557 C	Catholic ⁴
Briar Cliff College; Sioux City, Iowa (1930).....	Sister Mary Matilda.....	215 F	Catholic ⁴
Bridgeport, University of; Bridgeport, Conn. (1927).....	James H. Halsey.....	4,017 C	Private
Bridgewater College; Bridgewater, Va. (1880).....	Warren D. Bowman.....	515 C	Brethren ⁴
Brigham Young University; Provo, Utah (1875).....	Ernest L. Wilkinson.....	9,197 C	Latter-day Saints
Brooklyn Polytechnic Institute of; Brooklyn, N. Y. (1854).....	Ernst Weber.....	5,508 M ⁵	Private
Brooklyn College. See New York, College of the City of.....			
Brown University; Providence, R. I. (1764) ²⁷	Barnaby C. Keeney.....	3,628 Co	Private
Bryn Mawr College; Bryn Mawr, Pa. (1885).....	Katharine E. McBride...	841 F ⁶	Private
Bucknell University; Lewisburg, Pa. (1846).....	Merle M. Odgers.....	1,954 C	Baptist ⁴
Buena Vista College; Storm Lake, Iowa (1891).....	John A. Fisher.....	532 C	Presbyterian ⁴
Buffalo, University of; Buffalo, N. Y. (1846).....	Clifford C. Furnas ¹¹ ...	11,468 C	Private
Butler University; Indianapolis, Ind. (1855).....	M. O. Ross.....	3,720 C	Disc. of Christ ⁴
Caldwell College for Women; Caldwell, N. J. (1939).....	Sister M. Marguerite...	254 F	Catholic ⁴
California, University of; Berkeley, Calif. (1868).....	Clark Kerr.....	39,924 C ²⁸	State
Berkeley Campus.....	Clark Kerr ¹¹	18,020 C	State
Davis Campus.....	Stanley B. Freeborn ¹⁷ ...	2,240 C	State
Lick Observatory; Mt. Hamilton.....	Albert E. Whitford.....		State
Los Angeles Campus (UCLA).....	Roy M. B. Allen ¹¹ ...	15,345 C	State
Riverside Campus.....	Herman T. Spieth ¹⁷ ...	785 C	State
San Francisco Campus ³⁰	J. B. De C. M. Saunders ²²	1,290 C	State
Santa Barbara College.....	Elmer R. Noble.....	2,279 C	State
Scripps Institution of Oceanography; La Jolla.....	Roger R. Revelle ¹⁸ ...	48 C	State
California College of Arts & Crafts; Oakland, Calif. (1907).....	Joseph A. Danysz.....	332 C	Private
California Institute of Technology; Pasadena, Calif. (1891).....	Lee A. DuBridge.....	1,122 M ⁵	Private
California School of Fine Arts; San Francisco, Calif. (1874).....	Gurdon Woods ¹⁸	410 C	Private
California State Polytechnic College; San Luis Obispo, Calif. (1901) ²¹	Julian A. McPhee.....	3,768 C	State
California Western University; San Diego, Calif. (1924).....	William C. Rust.....	350 C	Methodist ⁴
Calvin College; Grand Rapids, Mich. (1876).....	William Spoelhof.....	1,681 C	Christian Ref.
Canisius College; Buffalo, N. Y. (1870).....	V. Rev. P. E. Dobson...	1,913 M ⁵	Catholic ⁴
Capital University; Columbus, Ohio (1850).....	Harold L. Yochum.....	1,356 C	Lutheran
Cardinal Stritch College; Milwaukee, Wis. (1937).....	Sister Mary Aquin.....	359 F	Catholic ⁴
Carleton College; Northfield, Minn. (1866).....	Laurence M. Gould.....	955 C	(²²)
Carnegie Institute of Technology; Pittsburgh, Pa. (1900).....	John C. Warner.....	3,187 C	Private
Carroll College; Helena, Mont. (1909).....	V. Rev. R. G. Hunthausen	635 C	Catholic
Carroll College; Waukesha, Wis. (1846).....	Robert D. Steele.....	762 C	Presbyterian ⁴
Carson-Newman College; Jefferson City, Tenn. (1851).....	Harley Fite.....	1,285 C	Baptist

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Carthage College; Carthage, Ill. (1870).....	Harold H. Lentz.....	446 C	Lutheran
Cascade College; Portland, Oreg. (1918).....	Edison Habegger.....	222 C	Private
Case Institute of Technology; Cleveland, Ohio (1880).....	T. Keith Glennan.....	2,180 M ³	Private
Catawba College; Salisbury, N. C. (1851).....	A. R. Keppel.....	707 C	Un. Ch. of Christ ⁴
Catholic University of America; Washington, D. C. (1889) ⁷	M. Rev. B. J. McEntegart ¹⁰	3,478 C	Catholic
Cedar Crest College; Allentown, Pa. (1867).....	Dale H. Moore.....	460 F	Un. Ch. of Christ ⁴
Centenary College of Louisiana; Shreveport, La. (1825).....	Joe J. Mickle.....	1,662 C	Methodist
Central College; Fayette, Mo. (1854).....	Ralph L. Woodward.....	649 C	Methodist
Central College; Pella, Iowa (1853).....	G. T. Vander Lugt.....	455 C	Reformed ⁴
Central Michigan College; Mt. Pleasant, Mich. (1892).....	Charles L. Anspach.....	5,494 C	State
Central Missouri State College; Warrensburg, Mo. (1871).....	Warren C. Lovinger.....	2,240 C	State
Central State College; Edmond, Okla. (1890).....	W. Max Chambers.....	2,563 C	State
Central State College; Wilberforce, Ohio (1887).....	Charles H. Wesley.....	957 C	State
Central Washington College of Education; Ellensburg, Wash. (1891).....	Robert E. McConnell.....	1,550 C	State
Centre College of Kentucky; Danville, Ky. (1819) ⁷	Walter A. Groves.....	450 C	Presbyterian ⁴
Chapman College; Orange, Calif. (1861).....	John L. Davis.....	333 C	Disc. of Christ ⁴
Charleston, College of; Charleston, S. C. (1790).....	George D. Grice.....	280 C	Private
Chatham College; Pittsburgh, Pa. (1869).....	Paul R. Anderson.....	434 F	Private
Chattanooga, University of; Chattanooga, Tenn. (1886).....	David A. Lockmiller.....	1,827 C	Methodist ⁴
Chestnut Hill College; Philadelphia, Pa. (1871).....	Sister Catharine Frances.....	508 F	Catholic ⁴
Chicago, School of the Art Institute of; Chicago, Ill. (1879).....	Hubert Ropp ¹²	894 C	Private
Chicago, University of; Chicago, Ill. (1890).....	Lawrence A. Kimpton ¹¹	7,706 C	Private
Chicago Teachers College; Chicago, Ill. (1869) ⁷	Raymond M. Cook ¹²	2,724 C	City
Chico State College; Chico, Calif. (1887).....	Glenn Kendall.....	2,606 C	State
Chouinard Art Institute; Los Angeles, Calif. (1921).....	Mrs. N. M. Chouinard.....	737 C	Private
Cincinnati, University of; Cincinnati, Ohio (1819).....	Walter C. Langsam.....	13,283 C	City
Citadel, The; Military College of S. C.; Charleston, S. C. (1842).....	Gen. Mark W. Clark.....	2,116 M	State
City College. See New York, College of the City of.....	.....	.....	.....
Claremont College; Claremont, Calif. (1925).....	E. Wilson Lyon ¹⁷	296 C	Private
Claremont Men's College; Claremont, Calif. (1947).....	George C. S. Benson.....	331 M	Private
Clark College; Atlanta, Ga. (1869).....	James P. Brawley.....	718 C	Methodist
Clark University; Worcester, Mass. (1887).....	Howard B. Jefferson.....	1,117 Co	Private
Clarke College; Dubuque, Iowa (1843).....	Sister Mary Benedict.....	648 F	Catholic ⁴
Clarkson College of Technology; Potsdam, N. Y. (1896).....	William G. Van Note.....	1,319 M	Private
Clemson Agricultural College; Clemson, S. C. (1889).....	Robert F. Poole.....	3,497 C	State
Coe College; Cedar Rapids, Iowa (1851).....	Joseph E. McCabe.....	725 C	Presbyterian ⁴
Coker College; Hartsville, S. C. (1908).....	J. A. Barry, Jr.....	323 F ⁶	Private
Colby College; Waterville, Maine (1813).....	J. Seelye Bixler.....	1,130 C	Private
Colgate University; Hamilton, N. Y. (1819).....	Everett Case.....	1,338 M	Private
Colorado, University of; Boulder & Denver, Colo. (1876).....	Quigg Newton.....	10,465 C	State
Colorado College; Colorado Springs, Colo. (1874).....	Louis T. Benezet.....	905 C	Private
Colorado State College; Greeley, Colo. (1890).....	William R. Ross.....	3,111 C	State
Colorado State University; Fort Collins, Colo. (1870) ^{3a}	William E. Morgan.....	4,677 C	State
Columbia College; Columbia, S. C. (1854).....	R. Wright Spears.....	624 F ⁶	Methodist
Columbia University; New York, N. Y. (1754).....	Grayson Kirk.....	21,019 C	Private
Concord College; Athens, W. Va. (1875).....	Virgil H. Stewart.....	1,086 C	State
Concordia College; Moorhead, Minn. (1891).....	Joseph L. Knutson.....	1,449 C	Lutheran
Concordia Teachers College; River Forest, Ill. (1864).....	Rev. Martin L. Koehnke.....	780 C	Lutheran
Concordia Teachers College; Seward, Nebr. (1894).....	Paul A. Zimmerman.....	457 C	Lutheran
Connecticut, University of; Storrs, Conn. (1881).....	A. N. Jorgensen.....	9,941 C	State
Connecticut College; New London, Conn. (1911).....	Rosemary Park.....	817 F	Private
Connecticut State Teachers College; Danbury, Conn. (1904).....	Ruth A. Haas.....	1,045 C	State
Connecticut State Teachers College; New Britain, Conn. (1849).....	Herbert D. Welte.....	2,189 C	State
Connecticut State Teachers College; New Haven, Conn. (1893).....	Hilton C. Buley.....	2,264 C	State
Connecticut State Teachers College; Willimantic, Conn. (1889).....	J. Eugene Smith.....	561 C	State
Converse College; Spartanburg, S. C. (1889).....	O. C. Carmichael, Jr.....	389 F ⁶	Private
Cooper Union; New York, N. Y. (1859).....	Edwin S. Burdell.....	1,227 C	Private
Cornell College; Mount Vernon, Iowa (1853).....	Russell D. Cole.....	686 C	Methodist ⁴
Cornell University; Ithaca, N. Y. (1865) ^{3a}	Deane W. Malott.....	10,632 C	Private
Creighton University; Omaha, Nebr. (1878).....	V. Rev. Carl M. Reinert.....	2,593 C	Catholic ⁴
Culver-Stockton College; Canton, Mo. (1853).....	Fred Helsabeck.....	389 C	Disc. of Christ ⁴
Dakota Wesleyan University; Mitchell, S. Dak. (1885).....	Matthew D. Smith.....	474 C	Methodist ⁴
Dartmouth College; Hanover, N. H. (1769).....	John S. Dickey.....	2,979 M	Private
David Lipscomb College; Nashville, Tenn. (1891).....	Athens Clay Pullias.....	848 C	Ch. of Christ ⁴
Davidson College; Davidson, N. C. (1837).....	C. J. Pietenpol ¹⁴ , ²²	865 M	Presbyterian
Davis & Elkins College; Elkins, W. Va. (1903).....	David K. Allen.....	462 C	Presbyterian
Dayton, University of; Dayton, Ohio (1882) ^{7a}	V. Rev. A. L. Seebold.....	4,335 C	Catholic ⁴
Delaware, University of; Newark, Del. (1833).....	John A. Perkins.....	2,275 C	State
Delaware State College; Dover, Del. (1891).....	Jerome H. Holland.....	306 C	State
Delta State College; Cleveland, Miss. (1924).....	James M. Ewing.....	676 C	State
Denison University; Granville, Ohio (1831).....	A. Blair Knapp.....	1,301 C	Baptist ⁴
Denver, University of; Denver, Colo. (1864).....	Chester M. Alter ¹¹	5,017 C	Methodist

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
DePaul University; Chicago, Ill. (1898).....	V. Rev. C. J. O'Malley.....	5,021 C	Catholic ⁴
DePauw University; Greencastle, Ind. (1837).....	Russell J. Humbert.....	2,015 C	Methodist ⁴
Detroit, University of; Detroit, Mich. (1877).....	Rev. Celestin J. Steiner.....	9,228 C	Catholic ⁴
Dickinson College; Carlisle, Pa. (1773).....	William W. Edel.....	944 C	Methodist ⁴
Dillard University; New Orleans, La. (1930).....	Albert W. Dent.....	829 C	Cg.-Chr. & Meth. ⁴
District of Columbia Teachers College; Washington, D. C. (1851).....	Paul O. Carr ¹⁴	710 C	City
Doane College; Crete, Nebr. (1872).....	Donald M. Typer.....	298 C	Congregational ⁴
Dominican College of San Rafael; San Rafael, Calif. (1890).....	Sister M. Patrick.....	416 F ⁹	Catholic ⁴
Douglass College; New Brunswick, N. J. (1918) ³⁸	Mary I. Bunting ¹²	1,302 F	State
Drake University; Des Moines, Iowa (1881).....	Henry G. Harmon.....	4,822 C	Private
Drew University; Madison, N. J. (1867).....	Fred G. Holloway.....	740 C	Methodist ⁴
Drexel Institute of Technology; Philadelphia, Pa. (1891).....	James Creese.....	8,123 C	Private
Dropsie College; Philadelphia, Pa. (1907).....	Abraham A. Neuman.....	126 C	Private
Drury College; Springfield, Mo. (1873).....	J. F. Findlay.....	658 C	Congregational ⁴
Dubuque, University of; Dubuque, Iowa (1852).....	Gaylord M. Couchman.....	556 C	Presbyterian ⁴
Duchesne College of the Sacred Heart; Omaha, Nebr. (1881).....	Mother Edith McShane.....	303 F	Catholic ⁴
Duke University; Durham, N. C. (1838).....	A. Hollis Edens.....	5,124 C	Methodist ⁴
Dunbarton College of Holy Cross; Washington, D. C. (1935).....	Sister M. M. Dolores.....	218 F	Catholic ⁴
Duquesne University; Pittsburgh, Pa. (1878).....	V. Rev. V. F. Gallagher.....	4,555 C	Catholic ⁴
D'Youville College; Buffalo, N. Y. (1908).....	Sister Regina Marie.....	592 F	Catholic ⁴
Earlham College; Richmond, Ind. (1847).....	Landrum R. Bolling.....	821 C	Quaker
East Carolina College; Greenville, N. C. (1907).....	John D. Messick.....	3,232 C	State
East Central State College; Ada, Okla. (1909).....	Charles F. Spencer.....	1,382 C	State
East Tennessee State College; Johnson City, Tenn. (1911).....	Burgin E. Dossett.....	3,200 C	State
East Texas College; Commerce, Tex. (1889).....	James G. Gee.....	2,423 C	State
Eastern Baptist College; St. Davids, Pa. (1932).....	Gilbert L. Giffin.....	251 C	Baptist ⁴
Eastern Baptist Theological Seminary, The; Philadelphia, Pa. (1925).....	Gilbert L. Giffin.....	160 C	Baptist ⁴
Eastern Illinois University; Charleston, Ill. (1895) ⁸	Quincy Doudna.....	2,000 C	State
Eastern Kentucky State College; Richmond, Ky. (1906).....	W. F. O'Donnell.....	2,715 C	State
Eastern Michigan College; Ypsilanti, Mich. (1849).....	Eugene B. Elliott.....	4,427 C	State
Eastern Montana College of Education; Billings, Mont. (1927).....	H. L. Steele.....	837 C	State
Eastern Nazarene College; Quincy, Mass. (1918).....	Edward S. Mann.....	544 C	Nazarene
Eastern New Mexico University; Portales, N. Mex. (1934).....	Floyd D. Golden.....	1,478 C	State
Eastern Oregon College; La Grande, Oreg. (1929).....	Frank B. Bennett.....	599 C	State
Eastern Washington College of Education; Cheney, Wash. (1890).....	Don S. Patterson.....	1,855 C	State
Elizabethtown College; Elizabethtown, Pa. (1899).....	A. C. Baugher.....	574 C	Brethren
Elmhurst College; Elmhurst, Ill. (1871).....	Robert C. Stanger.....	831 C	Evan. & Ref. ⁴
Elmira College; Elmira, N. Y. (1855).....	J. Ralph Murray.....	574 F ⁹	Private
Elon College; Elon College, N. C. (1889).....	James E. Danieley.....	1,661 C	Cong. Christian
Emerson College; Boston, Mass. (1880).....	S. Justus McKinley.....	385 C	Private
Emmanuel College; Boston, Mass. (1919).....	Sister Alice Gertrude.....	863 F	Catholic ⁴
Emmanuel Missionary College; Berrien Springs, Mich. (1874).....	F. O. Rittenhouse.....	804 C	7th Day Adven.
Emory & Henry College; Emory, Va. (1836).....	Earl G. Hunt, Jr.....	493 C	Methodist
Emory University; Atlanta, Ga. (1836).....	Sidney W. Martin.....	3,167 C	Methodist ⁴
Emporia, The College of; Emporia, Kans. (1882).....	Luther E. Sharpe.....	275 C	Presbyterian
Erskine College; Due West, S. C. (1839).....	J. M. Lesesne.....	481 C	Presbyterian
Evansville College; Evansville, Ind. (1854).....	Melvin W. Hyde.....	2,394 C	Methodist ⁴
Fairfield University; Fairfield, Conn. (1942).....	V. Rev. J. E. FitzGerald.....	1,351 M ⁴	Catholic
Fairleigh Dickinson University; Rutherford, N. J. (1941) ⁷⁰	Peter Sammartino.....	9,249 C	Private
Fairmont State College; Fairmont, W. Va. (1867).....	John W. Pence.....	1,049 C	State
Fenn College; Cleveland, Ohio (1923).....	G. Brooks Earnest.....	3,175 C	Private
Fisk University; Nashville, Tenn. (1866).....	Stephen J. Wright.....	706 C	Private
Flora Macdonald College; Red Springs, N. C. (1896).....	Marshall S. Woodson.....	342 C	Presbyterian
Florida, University of; Gainesville, Fla. (1853).....	J. Wayne Reitz.....	9,976 C	State
Florida A & M University; Tallahassee, Fla. (1887).....	George W. Gore, Jr.....	2,498 C	State
Florida Southern College; Lakeland, Fla. (1885).....	Charles T. Thrift, Jr.....	2,264 C	Methodist
Florida State University; Tallahassee, Fla. (1851).....	R. M. Strozier.....	7,203 C	State
Fontbonne College; St. Louis, Mo. (1923) ³⁸	Sister M. Marguerite Sheeley.....	576 F	Catholic ⁴
Fordham University; New York, N. Y. (1841).....	Rev. Laurence J. McGinley.....	8,771 C	Catholic
Fort Hays Kansas State College; Hays, Kans. (1902).....	M. C. Cunningham.....	2,278 C	State
Fort Valley State College; Fort Valley, Ga. (1895).....	C. V. Troup.....	764 C	State
Franklin & Marshall College; Lancaster, Pa. (1787).....	F. deWolfe Bolman, Jr.....	1,194 M	Ch. of Christ ⁴
Franklin College of Indiana; Franklin, Ind. (1834).....	Harold W. Richardson.....	561 C	Baptist ⁴
Fresno State College; Fresno, Calif. (1911).....	Arnold E. Joyal.....	4,421 C	State
Friends University; Wichita, Kans. (1898).....	Lowell E. Roberts.....	798 C	Quaker
Furman University; Greenville, S. C. (1826).....	John L. Plyler.....	1,220 C	Baptist
Gallaudet College; Washington, D. C. (1864).....	Leonard M. Elsted.....	344 C	Private ⁹
Gannon College; Erie, Pa. (1944).....	Rev. Wilfrid J. Nash.....	1,427 M	Catholic
Gen. Assembly's Trn'g Sch. for Lay Workers; Richmond, Va. (1914).....	C. E. S. Kraemer.....	101 C	Presbyterian
Geneva College; Beaver Falls, Pa. (1848).....	Edwin C. Clarke.....	801 C	Presbyterian
George Peabody College for Teachers; Nashville, Tenn. (1875).....	Henry H. Hill.....	1,607 C	Private
George Pepperdine College; Los Angeles, Calif. (1937) ⁷	M. Norvel Young.....	1,081 C	Ch. of Christ ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
George Washington University; Washington, D. C. (1821)	Cloyd H. Marvin	9,976 C	Private
George Williams College; Chicago, Ill. (1890)	John R. McCurdy	282 C	Private
Georgetown College; Georgetown, Ky. (1798)	H. Leo Eddleman	1,064 C	Baptist ¹
Georgetown University; Washington, D. C. (1789)	V. Rev. Edward B. Bunn	5,720 M ⁵	Catholic ⁴
Georgia, University of; Athens, Ga. (1785)	O. C. Aderhold	5,409 C	State
Georgia Institute of Technology; Atlanta, Ga. (1885)	Edwin D. Harrison	5,023 C	State
Georgia State College for Women; Milledgeville, Ga. (1889)	Robert E. Lee	574 F	State
Georgia State Col. of Bus. Adminis.; Atlanta, Ga. (1914)	Noah Langdale, Jr.	4,463 C	State
Georgia Teachers College; Collegeboro, Ga. (1908)	Zach S. Henderson	854 C	State
Georgian Court College; Lakewood, N. J. (1908)	Mother Marie Anna	250 F	Catholic ⁴
Gettysburg College; Gettysburg, Pa. (1832)	Willard S. Paul	1,417 C	Lutheran ⁴
Glenville State College; Glenville, W. Va. (1873)	Harry B. Hefflin	671 C	State
Golden Gate College; San Francisco, Calif. (1901)	Nagel T. Miner	1,263 C	Y.M.C.A. ⁴
Gonzaga University; Spokane, Wash. (1887)	Edmund W. Morton	1,633 C	Catholic
Good Counsel College; White Plains, N. Y. (1923)	Mother Mary Dolores	325 F	Catholic ⁴
Goshen College; Goshen, Ind. (1894)	Paul Mininger	860 C	Mennonite
Goucher College; Baltimore, Md. (1885)	Otto F. Kraushaar	698 F	Private
Grambling College; Grambling, La. (1901)	R. W. E. Jones	2,079 C	State
Great Falls, College of; Great Falls, Mont. (1932)	Rt. Rev. Msgr. J. J. Donovan	621 C	Catholic ⁴
Greensboro College; Greensboro, N. C. (1838)	Harold H. Hutson	425 C	Methodist ⁴
Greenville College; Greenville, Ill. (1892)	H. J. Long	474 C	Methodist ⁴
Grinnell College; Grinnell, Iowa (1846)	Howard R. Bowen	944 C	Cg.-Chr. & Epis. ⁴
Grove City College; Grove City, Pa. (1876)	J. Stanley Harker	1,350 C	Presbyterian ⁴
Guilford College; Greensboro, N. C. (1837)	Clyde A. Milner	651 C	Quaker ⁴
Gustavus Adolphus College; St. Peter, Minn. (1862)	Edgar M. Carlson	1,032 C	Lutheran
Hamilton College; Clinton, N. Y. (1812)	Robert W. McEwen	635 M	Private
Hamline University; St. Paul, Minn. (1854)	Paul H. Giddens	1,148 C	Methodist ⁴
Hampden-Sydney College; Hampden-Sydney, Va. (1776)	Joseph Clarke Robert	400 M	Presbyterian ⁴
Hampton Institute; Hampton, Va. (1868)	Alonso G. Morón	1,211 C	Private
Hanover College; Hanover, Ind. (1827)	E. Mowbray Tate ¹⁴	720 C	Presbyterian ⁴
Hardin-Simmons University; Abilene, Tex. (1891)	Evan A. Reiff	1,334 C	Baptist
Harding College; Searcy, Ark. (1919)	George S. Benson	924 C	Ch. of Christ ⁴
Harpur College. See New York, State University of.			
Harris Teachers College; St. Louis, Mo. (1857)	Glynn E. Clark	1,060 C	City & State
Hartt College of Music; Hartford, Conn. (1920)	Moshe Paranov	139 C	Private
Hartwick College; Oneonta, N. Y. (1928)	M. A. F. Ritchie	440 C	Lutheran ⁴
Harvard University; Cambridge, Mass. (1636)	Nathan M. Pusey	10,834 M ⁵	Private
Hastings College; Hastings, Nebr. (1882)	Theron B. Maxson	708 C	Presbyterian
Haverford College; Haverford, Pa. (1833)	Hugh Borton	452 M	Quaker
Hawaii, University of; Honolulu, Hawaii (1907)	Laurence H. Snyder	4,533 C	Territory
Hebrew Teachers College; Brookline, Mass. (1921)	Eisig Silberschlag ¹²	92 C	Private
Heidelberg College; Tiffin, Ohio (1850)	Terry Wickham	754 C	Ch. of Christ ⁴
Henderson State Teachers College; Arkadelphia, Ark. (1890) ⁷	D. D. McBrien	1,188 C	State
Hendrix College; Conway, Ark. (1884)	Marshall T. Steel	471 C	Methodist
High Point College; High Point, N. C. (1924)	Dennis H. Cooke	900 C	Methodist ⁴
Hillsdale College; Hillsdale, Mich. (1844)	J. Donald Phillips	679 C	Baptist ⁴
Hillier College; Hartford, Conn. (1879) ²⁸	Alan S. Wilson	1,727 C	Private
Hiram College; Hiram, Ohio (1850)	Paul F. Sharp	507 C	Disc. of Christ ⁴
Hobart & William Smith Colleges; Geneva, N. Y. (1822) ⁷	Rev. L. M. Hirshson	903 Co ²⁹	Episcopal ⁴
Hofstra College; Hempstead, N. Y. (1935)	John C. Adams	4,790 C	Private
Hollins College; Hollins College, Va. (1842)	John R. Everett	598 F	Private
Holy Cross, College of the; Worcester, Mass. (1843)	V. Rev. W. A. Donaghy	1,761 M	Catholic ⁴
Holy Names, College of the; Oakland, Calif. (1868)	Sister Imelda Maria	476 F	Catholic ⁴
Holy Names College; Spokane Wash. (1907)	Sister Marianne Raphael	256 F	Catholic ⁴
Hood College; Frederick, Md. (1893)	Andrew G. Truxal	538 F	Ch. of Christ ⁴
Hope College; Holland, Mich. (1851)	Irwin J. Lubbers	1,003 C	Reformed
Houghton College; Houghton, N. Y. (1883)	Stephen W. Paine	631 C	Methodist
Houston, University of; Houston, Tex. (1934)	Clanton W. Williams	12,237 C	(⁴⁰)
Howard College; Birmingham Ala. (1842)	Leslie S. Wright	1,831 C	Baptist
Howard University; Washington, D. C. (1867)	Mordecai W. Johnson	4,007 C	Private
Humboldt State College; Arcata, Calif. (1913)	Cornelius H. Siemens	1,642 C	State
Hunter College. See New York, College of the City of.			
Huntingdon College; Montgomery, Ala. (1854)	Hubert Searcy	599 C	Methodist ⁴
Huron College; Huron, S. Dak. (1883)	Daniel E. Kerr	465 C	Presbyterian
Idaho, College of; Caldwell, Idaho (1891)	Tom E. Shearer	646 C	Presbyterian ⁴
Idaho, University of; Moscow, Idaho (1889)	D. R. Theophilus	3,621 C	State
Idaho State College; Pocatello, Idaho (1901)	Carl W. McIntosh	1,806 C	State
Illinois, University of; Urbana, Champaign & Chicago, Ill. (1867)	David D. Henry	24,065 C	State
Illinois College; Jacksonville, Ill. (1829)	L. Vernon Caine	457 C	Cong. & Presb. ⁴
Illinois Institute of Technology; Chicago, Ill. (1892)	John T. Rettaliata	7,809 C	Private
Illinois State Normal University; Normal, Ill. (1857)	Robert G. Bone	3,062 C	State
Illinois Wesleyan University; Bloomington, Ill. (1850)	Merrill J. Holmes	1,066 C	Methodist ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Immaculate College; Immaculata, Pa. (1920).....	Sister Mary of Lourdes..	594 F	Catholic
Immaculate Heart College; Los Angeles, Calif. (1916).....	Sister Mary Humiliata..	1,137 F ⁸	Catholic ⁴
Incarnate Word College; San Antonio, Tex. (1881).....	Sister M. Columkille....	783 F ⁸	Catholic ⁴
Indiana Central College; Indianapolis, Ind. (1902).....	I. Lynd Esch.....	625 C	Evan. Un. Breth. ⁴
Indiana State Teachers College; Terre Haute, Ind. (1870).....	Raleigh W. Holmstedt....	3,153 C	State
Indiana University; Bloomington & Indianapolis, Ind. (1820).....	H. B. Wells.....	21,609 C	State
Inter American Univ. of Puerto Rico; ⁴¹ San Germán, P. R. (1912).....	Ronald C. Bauer.....	716 C	Presbyterian ⁴
Iona College; New Rochelle, N. Y. (1940).....	Rev. Brother W. H. Barnes	2,003 M	Catholic ⁴
Iowa, State University of; Iowa City, Iowa (1847).....	Virgil M. Hancher.....	9,919 C	State
Iowa State College of A & M Arts; Ames, Iowa (1858).....	James H. Hilton.....	9,230 C	State
Iowa State Teachers College; Cedar Falls, Iowa (1876) ⁸⁰	J. W. Maucker.....	3,210 C	State
Iowa Wesleyan College; Mount Pleasant, Iowa (1842).....	J. Raymond Chadwick....	462 C	Methodist
Ithaca College; Ithaca, N. Y. (1892).....	Howard I. Dillingham....	1,277 C	Private
Jackson College; Medford, Mass. (1910) ⁴²	Katharine R. Jeffers ¹² ..	560 F, Co	Private
Jamestown College; Jamestown, N. Dak. (1884).....	Edwin H. Rian.....	501 C	Presbyterian ⁴
Jewish Theological Seminary of America; New York, N. Y. (1887).....	Louis Finkelstein.....	685 Co ⁴³	Private
John Carroll University; Cleveland, Ohio (1886).....	Rev. Hugh E. Dunn.....	3,282 M ⁵	Catholic ⁴
Johns Hopkins University; Baltimore, Md. (1876).....	Milton S. Eisenhower....	7,474 M ⁵	Private
Johnson C. Smith University; Charlotte, N. C. (1867).....	Rufus P. Perry.....	700 C	Presbyterian ⁴
Judson College; Marion, Ala. (1838).....	J. I. Riddle.....	275 F	Baptist
Juilliard School of Music; New York, N. Y. (1905).....	William Schuman.....	657 C	Private
Juniata College; Huntingdon, Pa. (1876).....	Calvert N. Ellis.....	750 C	Brethren ⁴
Kalamazoo College; Kalamazoo, Mich. (1833).....	Weimer K. Hicks.....	623 C	Baptist ⁴
Kansas, University of; Lawrence & Kansas City, Kans. (1865).....	Franklin D. Murphy ¹¹ ..	8,438 C	State
Kansas City, University of; Kansas City, Mo. (1929).....	Richard M. Drake ¹¹	2,859 C	Private
Kansas State College of Agr. & App. Sci.; Manhattan, Kans. (1863).....	James A. McCain.....	6,458 C	State
Kansas State Teachers College; Emporia, Kans. (1863).....	John E. King.....	2,550 C	State
Kansas State Teachers College; Pittsburg, Kans. (1903).....	Leonard H. Axe.....	2,615 C	State
Kent State University; Kent, Ohio (1910) ⁸⁰	George A. Bowman.....	6,523 C	State
Kentucky, University of; Lexington, Ky. (1865).....	F. G. Dickey.....	7,764 C	State
Kentucky State College; Frankfort, Ky. (1886).....	Rufus B. Atwood.....	542 C	State
Kentucky Wesleyan College; Owensboro, Ky. (1860).....	Oscar W. Lever.....	569 C	Methodist
Kenyon College; Gambier, Ohio (1824).....	P. Edward Lund.....	518 M	Episcopal ⁴
Keuka College; Keuka Park, N. Y. (1890).....	Katherine G. Blyley.....	344 F	Baptist ⁴
King College; Bristol, Tenn. (1867).....	R. T. L. Liston.....	248 C	Presbyterian
King's College; Wilkes-Barre, Pa. (1946).....	Rev. George P. Benaglia..	950 M	Catholic ⁴
Knox College; Galesburg, Ill. (1837).....	Sharvy G. Umbeck.....	754 C	Private
Knoxville College; Knoxville, Tenn. (1875).....	James A. Colston.....	467 C	Presbyterian
Lafayette College; Easton, Pa. (1826).....	Guy E. Snavelly ¹⁵	1,510 M	Presbyterian ⁴
La Grange College; La Grange, Ga. (1831).....	Wrights G. Henry, Jr....	307 C	Methodist
Lake Erie College; Painesville, Ohio (1856) ⁷	Paul Weaver.....	395 F	Private
Lake Forest University; Lake Forest, Ill. (1857).....	Ernest A. Johnson.....	769 C	Presbyterian ⁴
Lamar State College of Technology; Beaumont, Tex. (1923).....	F. L. McDonald.....	3,730 C	State
Lambuth College; Jackson, Tenn. (1843).....	Luther L. Goppel.....	407 C	Methodist
Lander College; Greenwood, S. C. (1872).....	B. M. Grier.....	373 C	County-Private
Langston University; Langston, Okla. (1897).....	G. L. Harrison.....	591 C	State
La Salle College; Philadelphia, Pa. (1863).....	Brother E. Stanislaus....	3,600 M	Catholic ⁴
La Sierra College; Arlington, Calif. (1922).....	Norval F. Pease.....	824 C	7th Day Adven.
La Verne College; La Verne, Calif. (1891).....	Harold D. Fasnacht.....	557 C	Brethren ⁴
Lawrence College; Appleton, Wis. (1847) ⁷	Douglas M. Knight.....	788 C	Methodist ⁴
Lebanon Valley College; Annville, Pa. (1866).....	F. K. Miller.....	596 C	Evan. Un. Breth.
Lehigh University; Bethlehem, Pa. (1865).....	Martin D. Whitaker.....	3,198 M ⁶	Private
LeMoyne College; Memphis, Tenn. (1870).....	Hollis F. Price.....	460 C	Congregational ⁴
LeMoyne College; Syracuse, N. Y. (1946).....	V. Rev. Robert F. Grewen	1,013 C	Catholic ⁴
Lenoir Rhyne College; Hickory, N. C. (1891).....	Voigt R. Cromer.....	902 C	Lutheran
Lesley College; Cambridge, Mass. (1909).....	Trentwell M. White.....	504 F ⁸	Private
Lewis & Clark College; Portland, Oreg. (1867).....	Morgan S. Odell.....	1,025 C	Presbyterian
Limestone College; Gaffney, S. C. (1845).....	A. J. Eastwood.....	334 F ⁸	Private
Lincoln Memorial University; Harrogate, Tenn. (1897).....	Robert L. Kincaid.....	450 C	Private
Lincoln University; Jefferson City, Mo. (1866).....	Earl E. Dawson.....	1,054 C	State
Lincoln University; Lincoln University, Pa. (1854).....	A. O. Grubb ¹⁴	331 M ⁵	Private ⁴⁴
Lindenwood College; St. Charles, Mo. (1827).....	F. L. McCleuer.....	468 F ⁸	Presbyterian
Linfield College; McMinnville, Oreg. (1849).....	Harry L. Dillin.....	748 C	Baptist
Long Beach State College; Long Beach, Calif. (1949).....	P. Victor Peterson.....	7,400 C	State
Long Island University; Brooklyn, and Nassau County, N.Y. (1926).....	Adm. R. L. Conolly.....	3,548 C	Private
Longwood College; Farmville, Va. (1884).....	Francis G. Lankford, Jr..	879 F ⁸	State
Loras College; Dubuque, Iowa (1839).....	Rt. Rev. Msgr. D. V. Foley	1,181 M ⁵	Catholic
Loretto Heights College; Loretto, Colo. (1918).....	Sister F. M. Walsh.....	553 F	Catholic ⁴
Los Angeles County Art Institute; Los Angeles, Calif. (1918).....	Millard Sheets ¹⁸	84 C	County
Los Angeles St. Coll. of App. Arts & Sciences; Los Angeles (1947).....	Howard S. McDonald.....	10,739 C	State
Louisiana College; Pineville, La. (1906).....	G. Earl Guinn.....	828 C	Baptist
Louisiana Polytechnic Institute; Ruston, La. (1894) ⁷	R. L. Ropp.....	2,674 C	State

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Louisiana State University & A & M Col.; Baton Rouge, La. (1860)	Troy H. Middleton.....	7,152 C	State
Louisville, University of; Louisville, Ky. (1798)	Philip G. Davidson.....	5,786 C	Private
Lowell Technological Institute; Lowell, Mass. (1895)	Martin J. Lydon.....	1,017 C	State
Loyola College; Baltimore, Md. (1852)	V. Rev. Vincent F. Beatty	907 C ⁴⁵	Catholic ⁴
Loyola University; Chicago, Ill. (1870)	V. Rev. James F. Maguire	7,859 C	Catholic ¹
Loyola University; Los Angeles, Calif. (1911)	Rev. Charles S. Casassa..	1,391 M ⁵	Catholic ⁴
Loyola University; New Orleans, La. (1912)	V. Rev. W. P. Donnelly..	2,352 C	Catholic ⁴⁴
Luther College; Decorah, Iowa (1861)	J. W. Ylvisaker.....	1,116 C	Lutheran ⁴
Lycoming College; Williamsport, Pa. (1812)	D. Frederick Wertz.....	787 C	Methodist
Lynchburg College; Lynchburg, Va. (1903)	Orville W. Wake.....	674 C	Disc. of Christ ⁴
Macalester College; St. Paul, Minn. (1885)	Harvey M. Rice.....	1,306 C	Presbyterian ⁴
MacMurray College; Jacksonville, Ill. (1846)	Louis W. Norris.....	569 Co	Methodist ⁴
Madison College; Harrisonburg, Va. (1908)	G. Tyler Miller.....	1,203 F ⁶	State
Maine, University of; Orono, Maine (1865)	Lloyd H. Elliott.....	3,565 C	State
Manchester College; North Manchester, Ind. (1889)	A. Blair Helman.....	906 C	Brethren ⁴
Manhattan College; New York, N. Y. (1853)	Brother A. Philip.....	2,736 M	Catholic
Manhattan School of Music; New York, N. Y. (1917)	John Brownlee ¹⁸	655 C	Private
Manhattanville College of the Sacred Heart; Purchase, N. Y. (1841)	Mother E. M. O'Byrne..	726 F ⁵	Catholic ⁴
Marian College; Indianapolis, Ind. (1937)	Rev. Francis J. Reine....	519 C	Catholic
Marietta College; Marietta, Ohio (1835)	W. Bay Irvine.....	958 C	Congregational ⁴
Marquette University; Milwaukee, Wis. (1881)	V. Rev. E. J. O'Donnell..	8,059 C	Catholic ⁴
Marshall College; Huntington, W. Va. (1837)	Stewart H. Smith.....	3,678 C	State
Mary Baldwin College; Staunton, Va. (1842)	Samuel R. Spencer, Jr...	300 F	Presbyterian
Mary Hardin-Baylor College; Belton, Tex. (1845)	Arthur Tyson.....	677 F	Baptist
Mary Manse College; Toledo, Ohio (1922)	Mother John Baptist....	339 F	Catholic
Mary Washington College; Fredericksburg, Va. (1908) ⁴⁶	Grellet C. Simpson ¹¹ ...	1,447 F	State
Marycrest Co lege; Davenport, Iowa (1939)	Mother M. G. Upham....	583 F	Catholic ⁴
Marygrove College; Detroit, Mich. (1910)	Sister M. Honora.....	782 F	Catholic ⁴
Maryknoll Seminary; Glen Ellyn, Ill. (1949) ⁷	William P. North ¹⁰	216 M	Catholic
Maryknoll Teachers College; Maryknoll, N. Y. (1931)	Sister J. M. Lyons.....	155 F	Catholic ⁴
Maryland, University of; College Park, Md. (1807) ^{47, 48}	Wilson H. Elkins.....	15,690 C	State
Maryland State College; Princess Anne, Md. (1886) ⁴⁸	John T. Williams.....	410 C	State
Maryland State Teachers College; Baltimore, Md. (1866)	Earle T. Hawkins.....	1,176 C	State
Maryland State Teachers College; Frostburg, Md. (1902) ⁷	R. Bowen Hardesty.....	609 C	State
Maryland State Teachers College; Salisbury, Md. (1925)	Wilbur Devilbiss.....	299 C	State
Marylhurst College; Marylhurst, Oreg. (1930)	Sister Consuela Maria..	408 F	Catholic ⁴
Marymount College; Salina, Kans. (1922)	Mother M. H. Robben....	450 F	Catholic ⁴
Marymount College; Tarrytown and New York, N. Y. (1907)	Mother M. du Sacre Coeur	425 F	Catholic ⁴
Maryville College; Maryville, Tenn. (1819)	Ralph W. Lloyd.....	643 C	Presbyterian ⁴
Maryville College of the Sacred Heart; St. Louis, Mo. (1872) ⁴⁸	Mother M. Erskine.....	300 F	Catholic ⁴
Marywood College; Scranton, Pa. (1915)	Sister M. Eugenia.....	891 F	Catholic ⁴
Massachusetts, University of; Amherst, Mass. (1863)	J. Paul Mather.....	4,727 C	State
Massachusetts Institute of Technology; Cambridge, Mass. (1861)	James R. Killian, Jr. ⁶⁰	5,813 C	Private
Massachusetts School of Art; Boston Mass. (1873)	Otis Philbrick ¹⁴	463 C	State
Massachusetts State Teachers College; Bridgewater, Mass. (1840)	Clement C. Maxwell....	835 C	State
Massachusetts State Teachers College; Fitchburg, Mass. (1894)	Ralph F. Weston.....	864 C	State
Massachusetts State Teachers College; Framingham, Mass. (1839)	Martin F. O'Connor.....	650 F	State
Massachusetts State Teachers College; Lowell, Mass. (1894)	Daniel H. O'Leary.....	460 C	State
Massachusetts State Teachers College; North Adams, Mass. (1894)	Eugene L. Freel.....	245 C	State
Massachusetts State Teachers College; Salem, Mass. (1854)	Frederick A. Meier.....	850 C	State
Massachusetts State Teachers College; Westfield, Mass. (1839)	Edward J. Scanlon.....	551 C	State
McMurry College; Abilene, Tex. (1923) ⁷	Harold G. Cooke.....	731 C	Methodist
McNeese State College; Lake Charles, La. (1939)	Wayne N. Cusic.....	1,733 C	State
McPherson College; McPherson, Kans. (1887)	D. W. Bittinger.....	432 C	Brethren ⁴
Medical Evangelists, Coll. of; Loma Linda & Los Angeles, Calif. (1905)	G. T. Anderson.....	801 C	7th Day Adven.
Memphis State University; Memphis, Tenn. (1912) ⁷	J. Millard Smith.....	3,537 C	State
Mercer University; Macon, Ga. (1833)	George B. Connell.....	1,069 C	Baptist
Mercy College; Detroit, Mich. (1841)	Sister Mary Lucille....	450 F	Catholic ⁴
Mercyhurst College; Erie, Pa. (1926)	Mother M. Eustace.....	315 F	Catholic ⁴
Meredith College; Raleigh, N. C. (1891)	Carlyle Campbell.....	614 F	Baptist
Merrimack College; North Andover, Mass. (1947)	Rev. Vincent A. McQuade	847 C	Catholic
Miami, University of; Coral Gables, Fla. (1925)	Jay F. W. Pearson.....	9,672 C	Private
Miami University; Oxford, Ohio (1809)	John D. Millett.....	5,429 C	State
Michigan, University of; Ann Arbor, Mich. (1817)	Harlan Hatcher.....	23,164 C	State
Michigan College of Mining & Technology; Houghton, Mich. (1885)	J. R. Van Pelt.....	2,315 C	State
Michigan State Normal College. See Eastern Michigan College.			
Michigan State University, East Lansing, Mich. (1855) ⁶⁰	John A. Hannah.....	19,435 C	State
Middle Tennessee State College; Murfreesboro, Tenn. (1909)	Q. M. Smith.....	2,128 C	State
Middlebury College; Middlebury, Vt. (1800)	Samuel S. Stratton.....	1,224 C	Private
Midland College; Fremont, Nebr. (1887)	Paul W. Dieckman.....	485 C	Lutheran ⁴
Midwestern University; Wichita Falls, Tex. (1922)	Travis A. White.....	1,312 C	Private
Millikin University; Decatur, Ill. (1901)	Paul L. McKay.....	979 C	Presbyterian ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Mills College; Oakland, Calif. (1852)	Mary Woods Bennett ¹⁴	664 F	Private
Mills College of Education; New York, N. Y. (1909)	Amy Hostler	154 F	Private
Millsaps College; Jackson, Miss. (1892)	H. E. Finger, Jr.	811 C	Methodist ⁴
Milwaukee-Downer College; Milwaukee, Wis. (1851)	John B. Johnson, Jr.	170 F	Private
Minnesota, University of; Duluth, Minn. (1947) ⁵¹	Raymond W. Darland ¹⁷	1,875 C	State
Minnesota, University of; Minneapolis, Minn. (1851) ⁵²	J. L. Morrill	22,894 C	State
Minnesota State Teachers College; Bemidji, Minn. (1919)	C. R. Sattgast	1,122 C	State
Minnesota State Teachers College; Mankato, Minn. (1867)	C. L. Crawford	3,915 C	State
Minnesota State Teachers College; Moorhead, Minn. (1887)	A. L. Knoblauch	803 C	State
Minnesota State Teachers College; St. Cloud, Minn. (1869)	George F. Budd	2,348 C	State
Minnesota State Teachers College; Winona, Minn. (1860)	Nels Minnif	857 C	State
Misericordia College; Dallas, Pa. (1924)	Sister M. Celestine McHale	600 F	Catholic ⁴
Mississippi, University of; University, Miss. (1848)	J. D. Williams ¹³	3,629 C	State
Mississippi College; Clinton, Miss. (1826)	R. A. McLeomore	1,467 C	Baptist
Mississippi Southern College; Hattiesburg, Miss. (1910) ⁷	William D. McCain	3,383 C	State
Mississippi State College; State College, Miss. (1878)	Ben F. Hilbun	4,049 C	State
Mississippi State College for Women; Columbus, Miss. (1884)	Charles P. Hogarth	1,056 F	State
Missouri, University of; Columbia & Rolla, Mo. (1839)	Elmer Ellis	12,182 C	State
Missouri Valley College; Marshall, Mo. (1888)	M. Earle Collins	400 C	Presbyterian
Monmouth College; Monmouth, Ill. (1853)	Robert W. Gibson	644 C	Presbyterian ⁴
Montana School of Mines; Butte, Mont. (1893)	Edwin G. Koch	227 C	State
Montana State College; Bozeman, Mont. (1893)	Roland R. Renne	3,248 C	State
Montana State University; Missoula, Mont. (1893)	Carl McFarland	2,721 C	State
Moravian College; Bethlehem, Pa. (1742)	Raymond S. Hauptert	802 C	Moravian ⁴
Morehead State College; Morehead, Ky. (1923)	Adron Doran	1,478 C	State
Morehouse College. See Atlanta University System			
Morgan State College; Baltimore, Md. (1867)	Martin D. Jenkins	1,910 C	State
Morningside College; Sioux City, Iowa (1889)	J. Richard Palmer	923 C	Methodist ⁴
Morris Brown College; Atlanta, Ga. (1881)	John H. Lewis	820 C	A. M. E.
Mount Angel Seminary; St. Benedict, Oreg. (1889)	Rt. Rev. Damian Jentges	121 M	Catholic
Mount Angel Women's College; Mount Angel, Oreg. (1888)	Mother Mary Gemma	116 F ⁶	Catholic ⁴
Mount Holyoke College; South Hadley, Mass. (1837)	Richard G. Gettell	1,379 F	Private
Mount Mary College; Milwaukee, Wis. (1913)	Sister Mary J. Francis	923 F	Catholic ⁴
Mount Mercy College; Pittsburgh, Pa. (1929)	Mother Margaret Mary	480 F	Catholic ⁴
Mount St. Agnes College; Mount Washington, Md. (1890)	Sister M. Cleophas Costello	312 F	Catholic ⁴
Mount St. Joseph-on-the-Ohio, College of; Mt. St. Joseph, O. (1852)	Sister Mary Romana	521 F	Catholic ⁴
Mount St. Joseph Teachers College; Buffalo, N. Y. (1938) ⁷	Sister M. Hubert	290 F	Catholic ⁴
Mount St. Mary College; Hooksett, N. H. (1934)	Sister M. Mauritia	163 F	Catholic ⁴
Mount St. Mary's College; Emmitsburg, Md. (1808)	Rt. Rev. John L. Sheridan	628 M	Catholic
Mount St. Mary's College; Los Angeles, Calif. (1925)	Sister Rosemary	650 F	Catholic ⁴
Mount St. Scholastica College; Atchison, Kans. (1863)	Mother M. A. Schroll	521 F ⁶ Co ⁷⁵	Catholic ⁴
Mount St. Vincent, College of; New York, N. Y. (1847)	Sister Catharine Marie	535 F	Catholic ⁴
Mount Union College; Alliance, Ohio (1846)	Carl C. Bracy	723 C	Methodist ⁴
Muhlenberg College; Allentown, Pa. (1848)	J. Conrad Seegers	882 C	Lutheran ⁴
Mundelein College; Chicago, Ill. (1930)	Sister Mary Ann Ida	984 F	Catholic ⁴
Murray State College; Murray, Ky. (1922)	Ralph H. Woods	2,278 C	State
Muskingum College; New Concord, Ohio (1837)	Robert N. Montgomery	1,117 C	Presbyterian
National College of Education; Evanston, Ill. (1886)	K. Richard Johnson	690 C	Private
Nazareth College; Louisville, Ky. (1920) ⁷	Sister M. Gertrude	303 F	Catholic ⁴
Nazareth College; Nazareth, Mich. (1924)	Sister M. Kathleen	211 F	Catholic ⁴
Nazareth College; Rochester, N. Y. (1924)	Mother M. Helene	560 F	Catholic ⁴
Nebraska, University of; Lincoln & Omaha, Nebr. (1869)	Clifford Hardin ¹¹	7,834 C	State
Nebraska State Teachers College; Chadron, Nebr. (1911)	Barton L. Kline	628 C	State
Nebraska State Teachers College; Kearney, Nebr. (1905)	Herbert L. Cushing	1,350 C	State
Nebraska State Teachers College; Peru, Nebr. (1867)	Neal S. Gomon	534 C	State
Nebraska State Teachers College; Wayne, Nebr. (1910)	W. A. Brandenburg	997 C	State
Nebraska Wesleyan University; Lincoln, Nebr. (1887)	Vance D. Rogers	929 C	Methodist
Nevada, University of; Reno & Las Vegas, Nev. (1874)	William R. Wood ¹⁴	1,986 C	State
New Church, Academy of the; Bryn Athyn, Pa. (1877)	Rt. Rev. George de Charms	75 C	(53)
New England Conservatory of Music; Boston, Mass. (1867)	James Aliferis	407 C	Private
New Hampshire, University of; Durham, N. H. (1866)	Eldon L. Johnson	3,145 C	State
New Hampshire State Teachers College; Keene, N. H. (1909)	Lloyd P. Young	661 C	State
New Hampshire State Teachers College; Plymouth, N. H. (1871)	Harold E. Hyde	454 C	State
New Jersey College for Women. See Douglass College			
New Jersey State Teachers College; Montclair, N. J. (1908)	E. DeAlton Partridge	2,100 C	State
New Jersey State Teachers College; Trenton, N. J. (1855)	Edwin L. Martin	1,208 C	State
New Mexico, University of; Albuquerque, N. Mex. (1889)	Tom L. Popejoy	5,243 C	State
New Mexico College of A & M Arts; State College, N. Mex. (1889)	Roger B. Corbett	2,194 C	State
New Mexico Highlands University; Las Vegas, N. Mex. (1892)	Thomas C. Donnelly	955 C	State
New Mexico Institute of Mining and Tech.; Socorro, N. Mex. (1889)	E. J. Workman	209 C	State
New Mexico Western College; Silver City, N. Mex. (1893)	J. Cloyd Miller	720 C	State
New Rochelle, College of; New Rochelle, N. Y. (1904)	Mother Mary Peter Carthy	854 F	Catholic ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
New York, College of the City of:			
Brooklyn College; Brooklyn, N. Y. (1930).....	Harry D. Gideonse.....	10,008 C	City
City College; New York, N. Y. (1847).....	Buell G. Gallagher.....	21,180 C	City
Hunter College; New York, N. Y. (1870).....	George N. Shuster.....	8,485 F ⁴	City
Queens College; Flushing, N. Y. (1937).....	Harold W. Stoke.....	5,565 C	City ⁵⁶
New York, State University of; Albany, N. Y. (1948).....	(Vacant).....	39,734 C	State
Agricultural & Technical Institute; Alfred, N. Y. (1908).....	Paul B. Orvis ¹⁸	1,054 C	State
Agricultural & Technical Institute; Canton, N. Y. (1906).....	Albert E. French ¹⁸	453 C	State
Agricultural & Technical Institute; Cobleskill, N. Y. (1911).....	Ray L. Wheeler ¹⁸	348 C	State
Agricultural & Technical Institute; Delhi, N. Y. (1915).....	William R. Kunsela ¹⁸	269 C	State
Agricultural & Technical Institute; Farmingdale, N. Y. (1916).....	William A. Medesy ¹⁸	1,248 C	State
Agricultural & Technical Institute; Morrisville, N. Y. (1908).....	Royson N. Whipple ¹⁸	524 C	State
College of Agriculture at Cornell U.; Ithaca, N. Y. (1904).....	William I. Myers ¹²	2,102 C	State
College of Ceramics at Alfred U.; Alfred, N. Y. (1900).....	John F. McMahon ¹²	408 C	State
College of Forestry; Syracuse, N. Y. (1911).....	Hardy L. Shirley ¹²	585 M ⁵	State
College of Home Economics at Cornell U.; Ithaca, N. Y. (1900).....	Helen G. Canoyer ¹²	694 F ⁶	State
College of Medicine at New York City; Brooklyn, N. Y. (1857).....	Robert A. Moore ¹²	594 C	State
College of Medicine at Syracuse; Syracuse, N. Y. (1834).....	Carlyle Jacobsen ¹²	339 C	State
College on Long Island; Oyster Bay, N. Y. (1957).....	Leonard K. Olson ¹²	120 C	State
Harpur College; Endicott, N. Y. (1946).....	Glenn G. Bartle.....	685 C	State
Maritime College at Ft. Schuyler; New York, N. Y. (1874).....	Vice Adm. C. T. Durgin.....	504 M	State
School of Ind. & Labor Rel. at Cornell U.; Ithaca, N. Y. (1945).....	M. P. Catherwood ¹²	337 C	State
Teachers College; Albany, N. Y. (1844).....	Evan R. Collins.....	2,513 C	State
Teachers College; Brockport, N. Y. (1841).....	Donald M. Tower.....	1,329 C	State
Teachers College; Buffalo, N. Y. (1869).....	Harvey M. Rice.....	3,017 C	State
Teachers College; Cortland, N. Y. (1863).....	Donnal V. Smith.....	2,187 C	State
Teachers College; Fredonia, N. Y. (1867).....	Harry W. Porter.....	875 C	State
Teachers College; Geneseo, N. Y. (1867).....	Francis J. Moench.....	1,053 C	State
Teachers College; New Paltz, N. Y. (1886).....	William J. Haggerty.....	1,350 C	State
Teachers College; Oneonta, N. Y. (1887).....	Royal F. Netzer.....	1,132 C	State
Teachers College; Oswego, N. Y. (1861).....	Foster S. Brown.....	1,764 C	State
Teachers College; Plattsburgh, N. Y. (1889).....	George W. Angell.....	1,082 C	State
Teachers College; Potsdam, N. Y. (1889).....	Frederick W. Crumb.....	1,083 C	State
Veterinary College at Cornell U.; Ithaca, N. Y. (1894).....	William A. Hagan ¹²	224 C	State
New York University; New York, N. Y. (1831).....	Carroll V. Newsom.....	30,002 C	Private
Newark College of Engineering; Newark, N. J. (1881).....	Robert W. Van Houten.....	3,469 C	City & State
Newberry College; Newberry, S. C. (1856).....	C. A. Kaufmann.....	608 C	Lutheran
Newcomb College; New Orleans, La. (1886) ⁵⁷	John R. Hubbard ¹²	827 F	Private
Newton College of the Sacred Heart; Newton, Mass. (1946).....	Mother Gabrielle Husson.....	365 F	Catholic ⁴
Niagara University, Niagara Falls, N. Y. (1856).....	V. Rev. V. T. Swords.....	1,529 C	Catholic
North Carolina, Agr. & Tech. College of; Greensboro, N. C. (1891).....	Warmoth T. Gibbs.....	3,333 C	State
North Carolina, University of; Chapel Hill, N. C. (1931) ⁵⁸	William Friday.....	7,038 C	State
N. C. State Col. of Agr. & Eng.; Raleigh, N. C. (1887).....	Carey H. Bostian ¹¹	5,445 C	State
University of N. C. at Chapel Hill; Chapel Hill, N. C. (1789).....	William B. Aycock ¹¹	6,722 C	State
Woman's College; Greensboro, N. C. (1891).....	Gordon W. Blackwell ¹¹	2,261 F	State
North Carolina College; Durham, N. C. (1910).....	Alfonso Elder.....	1,396 C	State
North Carolina State Teachers Coll.; Elizabeth City, N. C. (1891).....	S. D. Williams.....	422 C	State
North Carolina State Teachers Coll.; Fayetteville, N. C. (1877).....	Rudolph Jones.....	578 C	State
North Central College; Naperville, Ill. (1861).....	C. Harve Geiger.....	840 C	Evan. Un. Breth.
North Dakota, University of; Grand Forks, N. Dak. (1883).....	George W. Starcher.....	3,571 C	State
North Dakota Agricultural College; Fargo, N. Dak. (1889).....	Fred S. Hultz.....	3,120 C	State
North Dakota State Normal & Ind. College; Ellendale, N. D. (1899).....	T. S. Jenkins.....	219 C	State
North Dakota State Teachers College; Dickinson, N. Dak. (1917).....	Charles E. Scott.....	489 C	State
North Dakota State Teachers College; Mayville, N. Dak. (1889).....	O. A. DeLong.....	430 C	State
North Dakota State Teachers College; Minot, N. Dak. (1913).....	C. P. Lura.....	1,057 C	State
North Dakota State Teachers College; Valley City, N. Dak. (1890) ⁵⁹	R. L. Lokken.....	684 C	State
North Georgia College; Dahlonega, Ga. (1873).....	Merritt E. Hoag.....	758 C	State
North Texas State College; Denton, Tex. (1890).....	J. C. Matthews.....	5,839 C	State
Northeast Louisiana State College; Monroe, La. (1928).....	Lewis C. Slater.....	1,964 C	State
Northeast Missouri State Teachers College; Kirksville, Mo. (1867).....	Walter H. Ryle.....	1,900 C	State
Northeastern State College; Tahlequah, Okla. (1909).....	Harrel E. Garrison.....	1,663 C	State
Northeastern University; Boston, Mass. (1898).....	Carl S. Eli.....	17,000 C	Private
Northern Baptist Theological Seminary; Chicago, Ill. (1913).....	Charles W. Koller.....	269 C	Baptist ⁴
Northern Illinois University; DeKalb, Ill. (1895).....	Leslie A. Holmes.....	4,471 C	State
Northern Michigan College; Marquette, Mich. (1899).....	Edgar L. Harden.....	1,322 C	State
Northern State Teachers College; Aberdeen, S. Dak. (1901).....	J. Howard Kramer.....	1,146 C	State
Northland College; Ashland, Wis. (1892).....	Gus Turbeville.....	318 C	Congregational ⁴
Northwest Missouri State College; Maryville, Mo. (1905).....	J. W. Jones.....	1,565 C	State
Northwest Nazarene College; Nampa, Idaho (1913).....	John E. Riley.....	555 C	Nazarene
Northwestern State College; Alva, Okla. (1897).....	Jesse W. Martin.....	831 C	State
Northwestern State College; Natchitoches, La. (1884).....	John S. Kyser.....	2,114 C	State
Northwestern University; Evanston & Chicago, Ill. (1851).....	J. Roscoe Miller.....	15,047 C	Private

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Norwich University; Northfield, Vt. (1819)	Maj. Gen. E. N. Harmon	808 M	Private
Notre Dame, College of; Belmont, Calif. (1868)	Sister Catharine Julie	282 F	Catholic ⁴
Notre Dame College; Cleveland, Ohio (1922)	Sister Mary Loyole	310 F	Catholic ⁴
Notre Dame College of Staten Island; Staten Island, N. Y. (1931)	Mother Saint Egbert	300 F	Catholic ⁴
Notre Dame, University of; Notre Dame, Ind. (1842)	Rev. T. M. Hesburgh	5,663 M	Catholic ⁴
Notre Dame of Maryland, College of; Baltimore, Md. (1873)	Sister Margaret Mary	576 F	Catholic ⁴
Notre Dame Seminary; New Orleans, La. (1923) ⁷	Rev. Thomas U. Bolduc ¹⁰	84 M	Catholic
Oberlin College; Oberlin, Ohio (1833)	William E. Stevenson	2,070 C	Private
Occidental College; Los Angeles, Calif. (1887)	Arthur G. Coons	1,364 C	Presbyterian ⁴
Oglethorpe University; Atlanta, Ga. (1835)	Donald C. Agnew	278 C	Private
Ohio State University; Columbus, Ohio (1870)	Novice G. Fawcett	20,972 C	State
Ohio University; Athens, Ohio (1804)	John C. Baker	9,110 C	State
Ohio Wesleyan University; Delaware, Ohio (1842)	Arthur S. Flemming	2,012 C	Methodist ⁴
Oklahoma, University of; Norman & Oklahoma City, Okla. (1892)	George L. Cross	10,287 C	State
Oklahoma Baptist University; Shawnee, Okla. (1910)	John W. Raley	1,153 C	Baptist
Oklahoma City University; Oklahoma City, Okla. (1904)	Jack S. Wilkes	2,294 C	Methodist
Oklahoma College for Women; Chickasha, Okla. (1908)	Freeman H. Beets	807 F	State
Oklahoma State U. of Agr. & App. Sci.; Stillwater, Okla. (1891) ¹³	Oliver S. Willham	8,836 C	State
Olivet Nazarene College; Kankakee, Ill. (1907)	Harold W. Reed	774 C	Nazarene
Omaha, Municipal University of; Omaha, Nebr. (1908)	Milo Bail	4,450 C	City
Oregon, University of; Eugene, Oreg. (1872)	O. Meredith Wilson	5,325 C	State
Oregon College of Education; Monmouth, Oreg. (1882)	Roy E. Lieuallen	841 C	State
Oregon State College; Corvallis, Oreg. (1868)	A. L. Strand	7,676 C	State
Ottawa University; Ottawa, Kans. (1865)	Andrew B. Martin	448 C	Baptist ⁴
Otterbein College; Westerville, Ohio (1847)	F. J. Vance ¹⁴	776 C	Evan. U. Breth. ⁴
Ouachita Baptist College; Arkadelphia, Ark. (1886)	Ralph A. Phelps, Jr.	809 C	Baptist
Our Lady of Cincinnati College; Cincinnati, Ohio (1935)	Sister M. Grace Grace	566 F	Catholic ⁴
Our Lady of the Elms, College of; Chicopee, Mass. (1928)	Most Rev. C. J. Weldon	400 F	Private
Our Lady of the Lake College; San Antonio, Tex. (1896)	John L. McMahon	519 F ⁶	Catholic ⁴
Ozarks, College of the; Clarksville, Ark. (1834)	Winslow S. Drummond	267 C	Presbyterian
Pace College, New York, N. Y. (1906)	Robert Scott Pace	1,945 C	Private
Pacific, College of the; Stockton, Calif. (1851)	Robert E. Burns	1,300 C	Methodist ⁴
Pacific Lutheran College; Tacoma, Wash. (1894)	S. C. Eastvold	1,324 C	Lutheran
Pacific Union College; Angwin, Calif. (1882)	R. W. Fowler	939 C	7th Day Adven.
Pacific University; Forest Grove, Oreg. (1849)	Charles J. Armstrong	603 C	Congregational ⁴
Pan American College; Edinburg, Texas (1927)	R. P. Ward	1,677 C	County & State
Park College; Parkville, Mo. (1875)	Robert E. Long	302 C	Presbyterian ⁴
Parsons College; Fairfield, Iowa (1875)	Millard G. Roberts	649 C	Presbyterian ⁴
Pasadena College; Pasadena, Calif. (1902)	Russell V. DeLong	893 C	Nazarene
Peabody Institute; Baltimore, Md. (1857)	John R. Montgomery	179 C	Private
Pembroke College; Providence, R. I. (1891) ²⁷	Nancy D. Lewis ¹²	866 Co	Private
Pembroke State College; Pembroke, N. C. (1887)	Walter J. Gale	375 C	State
Pennsylvania, University of; Philadelphia, Pa. (1740)	Gaylord P. Harnwell	11,279 C	Private
Pennsylvania Military College; Chester, Pa. (1821)	Edward E. MacMorland	735 M	Private
Pennsylvania State College of Optometry; Philadelphia, Pa. (1919)	Albert Fitch	140 C	Private
Pennsylvania State Teachers College; Bloomsburg, Pa. (1839)	Harvey A. Andrus	1,163 C	State
Pennsylvania State Teachers College; California, Pa. (1852)	Michael Duda	1,176 C	State
Pennsylvania State Teachers College; Cheyney, Pa. (1837)	James H. Duckrey	551 C	State
Pennsylvania State Teachers College; Clarion, Pa. (1867)	Paul G. Chandler	740 C	State
Pennsylvania State Teachers College; East Stroudsburg, Pa. (1893)	Le Roy J. Koehler	1,064 C	State
Pennsylvania State Teachers College; Edinboro, Pa. (1857)	Thomas R. Miller	858 C	State
Pennsylvania State Teachers College; Indiana, Pa. (1875)	Willis E. Pratt	2,400 C	State
Pennsylvania State Teachers College; Kutztown, Pa. (1866)	Q. A. W. Rohrbach	931 C	State
Pennsylvania State Teachers College; Lock Haven, Pa. (1870)	Richard T. Parsons	798 C	State
Pennsylvania State Teachers College; Mansfield, Pa. (1857)	Lewis W. Rathgeber	718 C	State
Pennsylvania State Teachers College; Millersville, Pa. (1855)	D. L. Biemesderfer	1,262 C	State
Pennsylvania State Teachers College; Shippensburg, Pa. (1871)	Ralph E. Heiges	1,075 C	State
Pennsylvania State Teachers College; Slippery Rock, Pa. (1889)	Norman N. Weisenfluh	999 C	State
Pennsylvania State Teachers College; West Chester, Pa. (1871) ⁷	Charles S. Swope	2,005 C	State
Pennsylvania State University; University Park, Pa. (1855)	Eric A. Walker	18,029 C	State
Pfeiffer College; Misenheimer, N. C. (1885)	J. Lem Stokes, II	723 C	Methodist
Philadelphia Textile Institute; Philadelphia, Pa. (1884)	Bertrand W. Hayward	353 C	Private
Philander Smith College; Little Rock, Ark. (1868)	M. LaFayette Harris	697 C	Methodist
Phillips University; Enid, Okla. (1906)	Eugene S. Briggs	998 C	Disc. of Christ
Pittsburgh, University of; Pittsburgh, Pa. (1787)	Edward H. Litchfield ¹¹	13,566 C	Private
Pomona College; Claremont, Calif. (1887)	E. Wilson Lyon	1,058 C	Private
Portland State College; Portland, Ore. (1955)	John F. Cramer	3,200 C	State
Portland, University of; Portland, Oreg. (1901)	Rev. Howard J. Kenna	1,298 C	Catholic ⁴
Prairie View A & M College; Prairie View, Tex. (1876)	E. B. Evans	2,600 C	State
Pratt Institute; Brooklyn, N. Y. (1887)	Robert F. Oxnaw	4,223 C	Private
Presbyterian College; Clinton, S. C. (1880)	Marshall W. Brown	501 C	Presbyterian
Princeton University; Princeton, N. J. (1746)	Robert F. Goheen	3,552 M	Private

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Principia College; Elmhurst, Ill. (1898).....	William E. Morgan.....	460 C	Private ⁴⁹
Providence College; Providence, R. I. (1917).....	V. Rev. Robert J. Slavin.....	1,823 M	Catholic
Puerto Rico, Catholic University of; Ponce, P. R. (1948).....	M. Rev. J. E. McManus ¹¹	2,250 C	Catholic ⁴
Puerto Rico, Polytechnic Inst. of. See Inter American U. of P. R.			
Puerto Rico, University of; Rio Piedras, P. R. (1903).....	Jaime Benitez ¹¹	15,634 C	Commonwealth
Puget Sound, College of; Tacoma, Wash. (1888).....	R. Franklin Thompson.....	1,615 C	Methodist ⁴
Purdue University; Lafayette, Ind. (1869).....	Frederick L. Hovde.....	12,307 C	State
Queens College; Charlotte, N. C. (1857) ⁷	Edwin R. Walker.....	482 F ⁶	Presbyterian ⁴
Queens College (NYC). See New York, College of the City of.			
Quincy College; Quincy, Ill. (1860).....	Rev. Julian Woods.....	650 C	Catholic ⁴
Radcliffe College; Cambridge, Mass. (1879) ⁶⁰	Wilbur K. Jordan.....	1,402 F	Private
Radford College; Radford, Va. (1913) ⁶¹	Charles K. Martin, Jr.....	1,013 Co	State
Randolph-Macon College; Ashland, Va. (1830).....	J. Earl Moreland.....	507 M	Methodist ⁴
Randolph-Macon Woman's College; Lynchburg, Va. (1891).....	W. F. Quillian, Jr.....	669 F	Methodist ⁴
Redlands, University of; Redlands, Calif. (1909).....	George H. Armacost.....	1,331 C	Baptist ⁴
Reed College; Portland, Ore. (1909).....	Richard H. Sullivan.....	660 C	Private
Regis College; Denver, Colo. (1887).....	V. Rev. Richard F. Ryan.....	843 M ⁶	Catholic ⁴
Regis College for Women, Weston, Mass. (1927).....	Sister Mary Alice.....	632 F	Catholic ⁴
Rensselaer Polytechnic Institute; Troy, N. Y. (1824).....	Richard G. Folsom.....	3,854 M ⁶	Private
Rhode Island, University of; Kingston, R. I. (1892).....	Carl R. Woodward.....	2,618 C	State
Rhode Island College of Education; Providence, R. I. (1854).....	William C. Gaige.....	1,260 C	State
Rhode Island School of Design; Providence, R. I. (1877).....	John R. Frazier.....	793 C	Private
Rice Institute; Houston, Tex. (1891).....	William V. Houston.....	1,885 C	Private
Richmond, University of; Richmond, Va. (1830).....	George M. Modlin.....	2,759 Co	Baptist ⁴
Rider College; Trenton, N. J. (1865).....	Franklin F. Moore.....	1,463 C	Private
Ripon College; Ripon, Wis. (1851).....	Fred O. Pinkham.....	600 C	Private
Rivier College; Nashua, N. H. (1933).....	Sister Clarice de St. Marie.....	365 F ⁶	Catholic ⁴
Roanoke College; Salem, Va. (1842).....	H. Sherman Oberly.....	618 C	Lutheran ⁴
Rochester, University of; Rochester, N. Y. (1850).....	Cornelis W. de Kiewiet.....	3,234 C	Private
Rockford College & Rockford Men's College; Rockford, Ill. (1847).....	Leland H. Carlson.....	376 Co	Private
Rockhurst College; Kansas City, Mo. (1910).....	V. Rev. M. E. Van Ackeren.....	1,282 M ⁶	Catholic
Rocky Mountain College; Billings, Mont. (1883).....	Philip W. Widenhouse.....	246 C	(⁶²)
Rollins College; Winter Park, Fla. (1885).....	Hugh F. McKean.....	638 C	Private
Roosevelt University; Chicago, Ill. (1945).....	Edward J. Sparling.....	4,321 C	Private
Rosary College; River Forest, Ill. (1848).....	Sister M. Aurelia.....	750 F ⁶	Catholic ⁴
Rosary Hill College; Buffalo, N. Y. (1947).....	Sister M. Angela.....	467 F	Catholic ⁴
Rose Polytechnic Institute; Terre Haute, Ind. (1874).....	F. L. Wilkinson, Jr.....	402 M	Private
Rosemont College of Holy Child Jesus; Rosemont, Pa. (1922) ⁷	Mother Mary Chrysostom.....	430 F	Catholic ⁴
Russell Sage College; Troy, N. Y. (1916) ⁷	Lewis A. Froman.....	727 F	Private
Rutgers University; New Brunswick, N. J. (1766) ³⁶	Lewis W. Jones.....	11,105 Co	State
Sacramento State College; Sacramento, Calif. (1947).....	Guy A. West.....	5,867 C	State
Sacred Heart, College of the; Santurce, P. R. (1935).....	Mother R. A. Arsuaga.....	162 F	Catholic ⁴
St. Ambrose College; Davenport, Iowa (1882).....	Rt. Rev. William J. Collins.....	968 Co	Catholic
St. Anselm's College; Manchester, N. H. (1889).....	Rev. Gerald F. McCarthy.....	878 M ⁶	Catholic
St. Benedict, College of; St. Joseph, Minn. (1913).....	Sister Rembertha Westkaemper.....	338 F	Catholic ⁴
St. Benedict's College; Atchison, Kansas (1857).....	Rt. Rev. Cuthbert McDonald.....	650 M	Catholic ⁴
St. Bernard College; St. Bernard, Ala. (1892).....	V. Rev. Brian Egan.....	387 C	Catholic ⁴
St. Bernardine of Siena College; Loudonville, N. Y. (1937).....	Rev. Edmund F. Christy.....	1,525 M ⁶	Catholic ⁴
St. Bonaventure University; St. Bonaventure, N. Y. (1856).....	V. Rev. Brian Lhota.....	1,674 C	Catholic ⁴
St. Catherine, College of; St. Paul, Minn. (1905).....	Sister Mary William.....	941 F	Catholic ⁴
St. Edward's Seminary; Kenmore, Wash. (1930).....	V. Rev. John R. Sullivan.....	131 M	Catholic
St. Elizabeth, College of; Convent Station, N. J. (1899).....	Sister H. M. Mahoney.....	460 F	Catholic
St. Francis, College of; Joliet, Ill. (1920).....	Sister Mary Elvira.....	515 F	Catholic ⁴
St. Francis College; Ft. Wayne, Ind. (1890).....	Sister M. Rosanna ¹⁴	241 F ⁶	Catholic ⁴
St. Francis College; Loretto, Pa. (1847).....	Rev. Kevin R. Keelan.....	950 C	Catholic ⁴
St. John Fisher College; Rochester, N. Y. (1951).....	V. Rev. John F. Murphy.....	398 M	Catholic
St. John's College; Annapolis, Md. (1696).....	Richard D. Weigle.....	214 C	Private
St. John's College; Camarillo and San Fernando, Calif. (1926).....	V. Rev. J. W. Richardson.....	136 M	Catholic
St. John's University; Brooklyn, N. Y. (1870).....	V. Rev. John A. Flynn.....	7,893 C	Catholic ⁴
St. John's University; Collegeville, Minn. (1857).....	Rt. Rev. B. Dworschak.....	1,025 M	Catholic
St. Joseph College; Emmitsburg, Md. (1809).....	Sister Hilda Gleason.....	382 F	Catholic ⁴
St. Joseph College; West Hartford, Conn. (1932).....	Sister M. Theodore ¹⁶	375 F	Catholic ⁴
St. Joseph's College; Collegeville, Ind. (1889).....	V. Rev. R. H. Gross.....	875 M	Catholic
St. Joseph's College; Philadelphia, Pa. (1851).....	V. Rev. J. J. Bluett.....	2,420 M ⁶	Catholic ⁴
St. Joseph's College for Women; Brooklyn, N. Y. (1916).....	Sister Vincent Therese.....	443 F	Catholic
St. Lawrence University; Canton, N. Y. (1856).....	Eugene G. Bewkes.....	1,328 C	Private
St. Louis University; St. Louis, Mo. (1818) ³⁸	V. Rev. Paul C. Reinert.....	7,044 C	Catholic ⁴
St. Martin's College; Olympia, Wash. (1895).....	V. Rev. Damian Glenn.....	289 M	Catholic ⁴
St. Mary College; Xavier, Kans. (1923).....	Arthur M. Murphy.....	654 F ⁶	Catholic ⁴
St. Mary of the Springs, College of; Columbus, Ohio (1911).....	Sister M. Angelita.....	316 F	Catholic ⁴
St. Mary-of-the-Wasatch, College of; Salt Lake City, Utah (1926).....	Sister Marie de Lourdes.....	75 F	Catholic ⁴
St. Mary-of-the-Woods Coll.; St. Mary-of-the-Woods, Ind. (1840).....	Sister Francis Joseph.....	463 F	Catholic ⁴

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
St. Mary's College; Notre Dame, Ind. (1844)	Sister M. Madeleva	966 F	Catholic ⁴
St. Mary's College; St. Mary's College, Calif. (1863)	Rev. Brother S. Albert	575 M	Catholic
St. Mary's College; Winona, Minn. (1912)	Brother J. Basil	786 M	Private
St. Mary's Dominican College; New Orleans, La. (1910)	Sister Mary Louise	311 F	Catholic ⁴
St. Mary's Seminary & University; Baltimore, Md. (1791)	V. Rev. L. P. McDonald	770 M	Catholic
St. Mary's University; San Antonio, Tex. (1852)	V. Rev. W. J. Buehler	1,844 M ⁵	Catholic ⁴
St. Michael's College; Winooski Park, Vt. (1904)	V. Rev. F. E. Moriarty	739 M	Catholic ⁴
St. Norbert College; West De Pere, Wis. (1898)	V. Rev. D. M. Burke	983 C	Catholic ⁴
St. Olaf College; Northfield, Minn. (1874)	Clemens M. Granskou	1,796 C	Lutheran ⁴
St. Patrick's Seminary; Menlo Park, Calif. (1898)	V. Rev. Edward J. Wagner	148 M	Catholic
St. Paul Seminary, The; St. Paul, Minn. (1895)	Rev. William O. Brady	350 M	Catholic
St. Peter's College; Jersey City, N. J. (1872)	V. Rev. J. J. Shanahan	1,822 M ⁵	Catholic
St. Rose, College of; Albany, N. Y. (1920)	Sister C. Francis	924 F ⁵	Catholic ⁴
St. Scholastica, College of; Duluth, Minn. (1912)	Mother Martina Hughes	337 F	Catholic ⁴
St. Teresa, College of; Kansas City, Mo. (1867)	Sister Alfred Noble	490 F	Catholic ⁴
St. Teresa, College of; Winona, Minn. (1907)	Sister M. C. Bowe	753 F	Catholic ⁴
St. Thomas, College of; St. Paul, Minn. (1885)	V. Rev. J. P. Shannon	1,302 M	Catholic ⁴
St. Thomas, University of; Houston, Tex. (1947)	Rev. V. J. Guinan	475 C	Catholic
St. Vincent College; Latrobe, Pa. (1846)	Rev. Q. L. Schaut	902 M	Catholic
St. Xavier College; Chicago, Ill. (1847)	Mother M. Huberta	634 F ⁶	Catholic ⁴
Salem Academy & College; Winston-Salem, N. C. (1772)	Dale H. Gramley	378 F ⁶	Moravian
Salve Regina College; Newport, R. I. (1947)	Sister Mary Hilda	265 F	Catholic ⁴
Sam Houston State Teacher's College; Huntsville, Tex. (1879)	Harmon Lowman	2,957 C	State
San Diego College for Women; San Diego, Calif. (1952)	Mother Rosalie Hill	360 F	Catholic ⁴
San Diego State College; San Diego, Calif. (1897)	Malcolm A. Love	8,810 C	State
San Francisco, University of; San Francisco, Calif. (1855)	Rev. J. F. X. Connolly	3,662 M ⁵	Catholic ⁴
San Francisco College for Women; San Francisco, Calif. (1930)	Mother Catherine Parks	487 F	Catholic ⁴
San Francisco State College; San Francisco, Calif. (1899)	Glenn S. Dumke	10,274 C	State
San Jose State College; San Jose, Calif. (1857)	John T. Wahlquist	9,200 C	State
Santa Clara, University of; Santa Clara, Calif. (1851)	Rev. Herman J. Hauck	1,407 M ⁵	Catholic
Sarah Lawrence College; Bronxville, N. Y. (1926)	Harold Taylor	397 F	Private
Savannah State College; Savannah, Ga. (1891)	W. K. Payne	986 C	State
Scarritt College for Christian Workers; Nashville, Tenn. (1892)	Foye G. Gibson	176 C	Methodist
Scranton, University of; Scranton, Pa. (1888)	V. Rev. John J. Long	1,726 M ⁵	Catholic ⁴
Scripps College, Claremont, Calif. (1926)	Frederick Hard	289 F	Private
Seattle Pacific College; Seattle, Wash. (1891)	C. Hoyt Watson	1,132 C	Methodist
Seattle University; Seattle, Wash. (1891)	V. Rev. A. A. Lemieux	3,079 C	Catholic ⁴
Seton Hall University; South Orange, N. J. (1856)	Rt. Rev. John L. McNulty	8,770 C	Catholic
Seton Hill College; Greensburg, Pa. (1883)	Rev. William G. Ryan	518 F	Catholic ⁴
Shepherd College; Shepherdstown, W. Va. (1871)	Oliver S. Ikenberry	751 C	State
Shimer College; Mount Carroll, Ill. (1853)	F. Joseph Mullin	108 C	Private
Shorter College; Rome, Ga. (1873)	Randall H. Minor	259 C	Baptist ⁴
Siena College; Memphis, Tenn. (1923)	Sister Clarita	294 F ⁶	Catholic ⁴
Siena Heights College; Adrian, Mich. (1919)	Sister Benedicta Marie	489 F	Catholic
Simmons College; Boston, Mass. (1899)	William Edgar Park	1,413 F ⁶	Private
Simpson College; Indianola, Iowa (1860)	William E. Kerstetter	645 C	Methodist ⁴
Skidmore College; Saratoga Springs, N. Y. (1911)	Val H. Wilson	1,145 F	Private
Smith College; Northampton, Mass. (1871)	Benjamin F. Wright	2,339 F	Private
Snow College; Ephraim, Utah (1888) ⁶⁴	J. Elliot Cameron ¹⁸	366 C	State
South, University of the; Sewanee, Tenn. (1857)	Edward McCrady	623 M	Episcopal
South Carolina, University of; Columbia, S. C. (1801)	Robert L. Sumwalt	5,000 C	State
South Carolina State College; Orangeburg, S. C. (1896)	Benner C. Turner	1,246 C	State
South Dakota, University of; Vermillion, S. Dak. (1882)	I. D. Weeks	2,222 C	State
South Dakota School of Mines & Tech.; Rapid City, S. Dak. (1885)	F. L. Partlo	819 C	State
South Dakota State College of A & M Arts; Brookings, S. Dak. (1881)	H. M. Crothers	3,322 C	State
Southeast Missouri State College; Cape Girardeau, Mo. (1873)	Mark F. Scully	1,601 C	State
Southeastern Louisiana College; Hammond, La. (1925)	L. H. Dyson	1,531 C	State
Southeastern State College; Durant, Okla. (1909)	A. E. Shearer	1,446 C	State
Southern California, University of; Los Angeles, Calif. (1880)	Norman H. Topping	17,089 C	Private
Southern Illinois University; Carbondale, Ill. (1869)	Delyte W. Morris	5,649 C	State
Southern Methodist University; Dallas, Tex. (1911)	Willis McD. Tate	5,983 C	Methodist
Southern Missionary College; Collegedale, Tenn. (1893)	T. W. Walters	528 C	7th Day Adven.
Southern Oregon College; Ashland, Oreg. (1926)	Elmo N. Stevenson	1,002 C	State
Southern State College; Magnolia, Ark. (1909)	Dolph Camp	939 C	State
Southern University & A & M College; Baton Rouge, La. (1880)	Felton G. Clark	3,906 C	State
Southern Utah, College of; Cedar City, Utah (1897) ⁶⁴	Royden C. Braithwaite ¹⁸	500 C	State
Southwest Missouri State College; Springfield, Mo. (1906)	Roy Ellis	2,312 C	State
Southwest Texas State Teachers College; San Marcos, Tex. (1899)	J. G. Flowers	2,143 C	State
Southwestern at Memphis; Memphis, Tenn. (1848)	Peyton N. Rhodes	577 C	Presbyterian
Southwestern College; Winfield, Kans. (1885)	C. Orville Strohl	528 C	Methodist ⁴
Southwestern Louisiana Institute; Lafayette, La. (1898)	Joel L. Fletcher	4,308 C	State
Southwestern State College; Weatherford, Okla. (1903)	R. H. Burton	1,566 C	State

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Southwestern University; Georgetown, Tex. (1840)	William C. Finch	528 C	Methodist ⁴
Spelman College; See Atlanta University System			
Spring Hill College; Mobile, Ala. (1830)	V. Rev. A. C. Smith	1,119 C	Catholic ⁴
Springfield College; Springfield, Mass. (1885)	Glenn A. Olds	1,170 C	Private
Stanford University; Stanford, Calif. (1885)	J. E. W. Sterling	7,842 C	Private
Stephen F. Austin State College; Nacogdoches, Tex. (1921)	Paul L. Boynton	1,796 C	State
Sterling College; Sterling, Kans. (1887)	William M. McCreery	353 C	Presbyterian ⁴
Stetson University; Deland, Fla. (1883)	J. Ollie Edmunds	1,325 C	Baptist ⁴
Stevens Institute of Technology; Hoboken, N. J. (1870)	Jess H. Davis	1,815 M	Private
Stout State College; Menomonie, Wis. (1893)	Verne C. Fryklund	1,115 C	State
Suffolk University; Boston, Mass. (1906)	Robert J. Munce	1,600 C	Private
Sul Ross State College; Alpine, Tex. (1919)	Bryan Wildenthal	820 C	State
Susquehanna University; Selingsgrove, Pa. (1858)	G. Morris Smith	474 C	Lutheran ⁴
Swarthmore College; Swarthmore, Pa. (1864)	Courtney Smith	843 C	Quaker ⁴
Sweet Briar College; Sweet Briar, Va. (1901)	Anne G. Pannell	510 F	Private
Syracuse University; Syracuse, N. Y. (1870) ⁶⁶	William P. Tolley ²¹	14,786 C	Private
Talladega College; Talladega, Ala. (1867)	Arthur D. Gray	346 C	Congregational ⁴
Tampa, University of; Tampa, Fla. (1931)	M. C. Rhodes ¹⁴	1,422 C	Private
Tarkio College; Tarkio, Mo. (1883)	Clyde H. Canfield	269 C	Presbyterian
Taylor University; Upland, Ind. (1846)	Evan H. Bergwall	580 C	Private
Temple University; Philadelphia, Pa. (1884)	Robert L. Johnson	10,161 C	Private
Tennessee, University of; Knoxville, Tenn. (1794)	C. E. Brehm	10,330 C	State
Tennessee Agr. & Ind. State University; Nashville, Tenn. (1912)	Walter S. Davis	2,805 C	State
Tennessee Polytechnic Institute; Cookeville, Tenn. (1915)	Everett Derryberry	2,416 C	State
Texas, A & M College of; College Station, Tex. (1876)	M. T. Harrington	6,200 M	State
Texas, University of; Austin, Tex.	Logan Wilson		State
Main University; Austin, Tex. (1833)	H. H. Ransom ¹⁷	15,883 C	State
Dental Branch; Houston, Tex. (1905)	John V. Olson	325 C	State
Southwestern Medical School; Dallas, Tex. (1943)	A. J. Gill	391 C	State
Texas Western College; El Paso, Tex. (1913)	Joseph R. Smiley	3,475 C	State
Texas Christian University; Fort Worth, Tex. (1873)	M. E. Sadler	5,212 C	Disc. of Christ ⁴
Texas College of Arts & Industries; Kingsville, Tex. (1925)	Ernest H. Poteet	2,650 C	State
Texas Lutheran College; Seguin, Tex. (1891)	Edward A. Sagebiel	596 C	Lutheran
Texas Southern University; Houston, Tex. (1947)	S. M. Nabrit	2,708 C	State
Texas State Woman's University; Denton, Tex. (1901) ⁷⁷	John A. Guinn	2,300 F	State
Texas Technological College; Lubbock, Tex. (1923)	E. N. Jones	7,737 C	State
Texas Wesleyan College; Fort Worth, Tex. (1890)	Law Sone	1,182 C	Methodist
Texas Western College. See University of Texas.			
Thiel College; Greenville, Pa. (1866)	Frederic B. Irvin	715 C	Lutheran
Tift College; Forsyth, Ga. (1849)	Carey T. Vinzant	420 F	Baptist
Toledo, University of; Toledo, Ohio (1872)	Asa S. Knowles	5,408 C	City
Tougaloo Southern Christian College; Tougaloo, Miss. (1869)	Samuel C. Kincheloe	529 C	Cong. & D. of C. ⁴
Transylvania College; Lexington, Ky. (1780)	Irvine E. Lunger	389 C	Disc. of Christ ⁴
Trinity College; Burlington, Vt. (1925) ⁷⁸	Mother M. Emmanuel	173 F	Catholic ⁴
Trinity College; Hartford, Conn. (1823)	Albert C. Jacobs	1,353 M ⁵	Private
Trinity College; Washington, D. C. (1897)	Sister Mary Patrick	534 F	Catholic ⁴
Trinity University; San Antonio, Tex. (1869)	James W. Laurie	1,472 C	Presbyteria ⁴
Tufts University; Medford & Boston, Mass. (1852) ⁴²	Nils Y. Wessell	4,006 C	Private
Tulane University; New Orleans, La. (1834) ⁵⁷	Rufus C. Harris	6,244 Co	Private
Tulsa, University of; Tulsa, Okla. (1894)	Ben G. Henneke	4,905 C	Presbyterian ⁴
Tusculum College; Greeneville, Tenn. (1794)	Raymond C. Rankin	267 C	Presbyterian ⁴
Tuskegee Institute; Tuskegee Institute, Ala. (1881)	L. H. Foster	1,983 C	Private
Union College; Barbourville, Ky. (1879) ⁷	Conway Boatman	673 C	Methodist
Union College; Lincoln, Nebr. (1891)	David J. Bieber	876 C	7th Day Adven.
Union College & University; Schenectady & Albany, N. Y. (1795)	Carter Davidson ⁷⁹	2,524 M ⁵	Private
Union University; Jackson, Tenn. (1825)	Warren F. Jones	759 C	Baptist
U. S. Air Force Academy; Colorado Springs, Colo. (1954)	Maj. Gen. J. E. Briggs ²¹	1,169 M	Federal
U. S. Coast Guard Academy; New London, Conn. (1876)	R. Adm. F. A. Leamy ²¹	525 M	Federal
U. S. Merchant Marine Academy; Kings Point, N. Y. (1938)	Rear Adm. G. McIntock ²¹	900 M	Federal
U. S. Military Academy; West Point, N. Y. (1802)	Maj. Gen. G. H. Davidson ²¹	2,345 M	Federal
U. S. Naval Academy; Annapolis, Md. (1845)	R. Adm. W. Smedberg ²¹	3,565 M	Federal
U. S. Naval Postgraduate School; Monterey, Calif. (1909)	R. Adm. E. E. Yeomans ²¹	483 M	Federal
Upper Iowa University; Fayette, Iowa (1857)	Eugene E. Garbee	371 C	Private
Upsala College; East Orange, N. J. (1893)	E. B. Lawson	1,533 C	Lutheran
Ursinus College; Collegeville, Pa. (1869)	Norman E. McClure	750 C	Un. Ch. of Christ ⁴
Ursuline College; Louisville, Ky. (1938)	Mother M. Cosma	390 F	Catholic ⁴
Ursuline College for Women; Cleveland, Ohio (1871)	Mother Marie Sands	254 F	Catholic ⁴
Utah, University of; Salt Lake City, Utah (1850)	Albert R. Olpin	7,955 C	State
Utah State U. of Agr. & Applied Science; Logan, Utah (1888) ⁶⁴	Daryl Chase	4,148 C	State
Valdosta State College; Valdosta, Ga. (1906)	J. Ralph Thaxton	510 C	State
Valparaiso University; Valparaiso, Ind. (1859)	O. P. Kretzmann	2,212 C	Lutheran ⁴
Vanderbilt University; Nashville, Tenn. (1872) ⁷	Harvie Branscomb ¹⁴	3,283 C	Private

Institution, location and (date founded)	Chief executive ¹	Students ²	Control ³
Vassar College; Poughkeepsie, N. Y. (1861)	Sarah Gibson Blanding	1,430 F	Private
Vermont, University of; & State Agr. College; Burlington, Vt. (1791)	Carl W. Borgmann	2,754 C	State
Villa Maria College; Erie, Pa. (1925)	Mother M. Aurelia	386 F	Catholic ⁴
Villanova University; Villanova, Pa. (1842)	Rev. J. A. Donnellon	3,499 M ⁵	Catholic ⁴
Virginia, University of; Charlottesville, Va. (1819) ⁴⁶	Colgate W. Darden, Jr.	4,621 Co	State
Virginia Military Institute; Lexington, Va. (1839)	Maj. Gen. W. H. Milton ²¹	940 M	State
Virginia Polytechnic Institute; Blacksburg, Va. (1872) ⁴¹	Walter S. Newman	4,454 C	State
Virginia State College; Petersburg & Norfolk, Va. (1882) ⁷	Robert P. Daniel	2,465 C	State
Viterbo College; La Crosse, Wis. (1931)	Sister M. Francesca	215 F	Catholic ⁴
Wabash College; Crawfordsville, Ind. (1832)	Byron K. Trippet	587 M	Private
Wagner Lutheran College; Staten Island, N. Y. (1883)	David M. Delo	1,323 C	Lutheran ⁴
Wake Forest College; Winston-Salem, N. C. (1834)	Harold W. Tribble	2,356 C	Baptist
Walla Walla College; College Place, Wash. (1892)	P. W. Christian	1,208 C	7th Day Adven.
Wartburg College; Waverly, Iowa (1852)	C. H. Becker	820 C	Lutheran
Washburn University of Topeka; Topeka, Kans. (1865)	Bryan S. Stoffer	1,626 C	City
Washington, State College of; Pullman, Wash. (1890)	C. Clement French	5,330 C	State
Washington, University of; Seattle, Wash. (1861)	Charles E. Odegaard	13,999 C	State
Washington & Jefferson College; Washington, Pa. (1781)	Boyd C. Patterson	720 M	Private
Washington & Lee University; Lexington, Va. (1749)	Francis P. Gaines	1,021 M	Private
Washington College; Chestertown, Md. (1782)	Daniel Z. Gibson	460 C	Private
Washington Missionary College; Washington, D. C. (1904)	William H. Shephard	721 C	7th Day Adven.
Washington University; St. Louis, Mo. (1853)	Ethan A. H. Shepley ¹¹	13,059 C	Private
Wayland Baptist College; Plainview, Texas (1908)	A. Hope Owen	418 C	Baptist
Wayne State University; Detroit, Mich. (1868)	Clarence B. Hilberry	18,178 C	State ²¹
Waynesburg College; Waynesburg, Pa. (1849)	Paul R. Stewart	743 C	Presbyterian ⁴
Webb Institute of Naval Architecture; Glen Cove, N. Y. (1889)	R. Adm. F. E. Haeberle ⁷²	74 M	Private
Webster College; Webster Groves, Mo. (1916) ^{7,38}	Sister Mariella	370 F	Catholic ⁴
Wellesley College; Wellesley, Mass. (1870)	Margaret Clapp	1,746 F	Private
Wells College; Aurora, N. Y. (1868)	Louis J. Long	380 F	Private
Wesleyan College; Macon, Ga. (1836)	B. Joseph Martin	478 F ⁶	Methodist
Wesleyan University; Middletown, Conn. (1831)	Victor L. Butterfield	777 M	Private
West Liberty State College; West Liberty, W. Va. (1837)	Paul N. Elbin	702 C	State
West Texas State College; Canyon, Tex. (1910) ⁷	James P. Cornette	2,765 C	State
West Virginia Institute of Technology; Montgomery, W. Va. (1895)	William B. Axtell	826 C	State
West Virginia State College; Institute, W. Va. (1891)	William J. L. Wallace	2,199 C	State
West Virginia University; Morgantown, W. Va. (1867)	Irvin Stewart	5,677 C	State
West Virginia Wesleyan College; Buckhannon, W. Va. (1890)	Stanley H. Martin	840 C	Methodist
Western Carolina College; Cullowhee, N. C. (1889)	Paul A. Reid	1,137 C	State
Western College for Women; Oxford, Ohio (1853)	Herrick B. Young	263 F	Private
Western Illinois University; Macomb, Ill. (1899)	Richard G. Browne ¹⁴	2,654 C	State
Western Kentucky State College; Bowling Green, Ky. (1906)	Kelly Thompson	2,267 C	State
Western Maryland College; Westminster, Md. (1867)	Lowell S. Ensor	642 C	Methodist ¹⁴
Western Michigan University; Kalamazoo, Mich. (1903)	Paul V. Sangren	8,714 C	State
Western Montana College of Education; Dillon, Mont. (1897)	James E. Short	340 C	State
Western Reserve University; Cleveland, Ohio (1826)	John S. Millis	5,259 C	Private
Western State College of Colorado; Gunnison, Colo. (1901)	P. P. Mickelson	927 C	State
Western Washington Coll. of Education; Bellingham, Wash. (1899)	W. W. Haggard	2,184 C	State
Westmar College; Le Mars, Iowa (1890)	H. H. Kalas	445 C	Evan. Un. Breth.
Westminster College; Fulton, Mo. (1851)	Robert L. D. Davidson	421 M	Presbyterian
Westminster College; New Wilmington, Pa. (1852)	Will W. Orr	1,108 C	Presbyterian
Westminster College; Salt Lake City, Utah (1875)	Frank E. Duddy, Jr.	347 C	Presb. & Meth. ⁴
Westminster Theological Seminary; Philadelphia, Pa. (1929)	Cornelius Van Til	74 M	Private
Wheaton College; Norton, Mass. (1834)	A. Howard Meneely	630 F	Private
Wheaton College; Wheaton, Ill. (1860)	V. Raymond Edman	1,780 C	Private
Wheelock College; Boston, Mass. (1889)	Frances Mayfarth	365 F ⁶	Private
Whitman College; Walla Walla, Wash. (1859)	Chester C. Maxey	785 C	Private
Whittier College; Whittier, Calif. (1901)	Paul S. Smith	1,089 C	Quaker ⁴
Whitworth College; Spokane, Wash. (1890)	Frank F. Warren	1,184 C	Presbyterian ⁴
Wichita, University of; Wichita, Kans. (1895)	Harry F. Corbin	5,338 C	City
Wilkes College; Wilkes-Barre, Pa. (1933)	Eugene S. Farley	1,043 C	Private
Willamette University; Salem, Oreg. (1842)	G. Herbert Smith	1,168 C	Methodist ¹⁴
William and Mary, College of; Williamsburg, Va. (1693)	A. D. Chandler	1,904 C	State
William Jewell College; Liberty, Mo. (1849)	Walter P. Binns	689 C	Baptist ⁴
William Smith College. See Hobart			
Williams College; Williamstown, Mass. (1793)	James P. Baxter, 3rd	1,040 M	Private
Wilmington College; Wilmington, Ohio (1875)	Samuel D. Marble	600 C	Quaker ⁴
Wilson College; Chambersburg, Pa. (1869)	Paul S. Havens	445 F	Presbyterian ⁴
Wilson Teachers College. See District of Columbia Teachers College			
Winthrop College; Rock Hill, S. C. (1886)	Henry R. Sims	994 F	State
Wisconsin, University of; Madison, Wis. (1849)	Conrad V. Elvehjem	15,563 C	State
Wisconsin, Univ. of (Milwaukee branch); Milwaukee, Wis. (1956) ³⁴	J. Martin Klotzsche ¹⁷	4,488 C	State
Wisconsin State College; Eau Claire, Wis. (1916)	William R. Davies	1,364 C	State

Institution, location and (date founded)

Chief executive¹Students²Control³

Wisconsin State College; La Crosse, Wis. (1909).....	Rexford S. Mitchell.....	1,557 C	State
Wisconsin State College; Oshkosh, Wis. (1871).....	Forrest R. Polk.....	1,209 C	State
Wisconsin State College; Platteville, Wis. (1866).....	Chester O. Newlun.....	1,185 C	State
Wisconsin State College; River Falls, Wis. (1874).....	E. H. Kleinpell.....	1,130 C	State
Wisconsin State College; Stevens Point, Wis. (1894).....	William C. Hansen.....	1,282 C	State
Wisconsin State College; Superior, Wis. (1896).....	Jim D. Hill.....	1,169 C	State
Wisconsin State College; Whitewater, Wis. (1868).....	Robert C. Williams.....	1,334 C	State
Wittenberg College; Springfield, Ohio (1845).....	Clarence C. Stoughton.....	1,299 C	Lutheran
Wofford College; Spartanburg, S. C. (1854).....	Philip Covington ¹⁴	700 M	Methodist
Woodstock College; Woodstock, Md. (1867).....	Rev. Edward J. Sponga.....	235 M	Catholic
Wooster, College of; Wooster, Ohio (1866).....	Howard F. Lowry.....	1,156 C	Presbyterian
Worcester Polytechnic Institute; Worcester, Mass. (1865).....	Arthur B. Bronwell.....	1,024 M	Private
Wyoming, University of; Laramie, Wyo. (1887).....	G. D. Humphrey.....	3,276 C	State
Xavier University; Cincinnati, Ohio (1831).....	V. Rev. P. L. O'Connor.....	3,542 M ⁵	Catholic ⁴
Xavier University; New Orleans, La. (1925).....	Sister M. Josephina.....	1,014 C	Catholic ⁴
Yale University; New Haven, Conn. (1701).....	A. Whitney Griswold.....	7,227 M ⁵	Private
Yankton College; Yankton, S. Dak. (1881).....	Adrian Rondileau.....	307 C	Congregational ⁴
Yeshiva University; New York, N. Y. (1866).....	Samuel Belkin.....	3,200 Co	Jewish ⁴
Youngstown University; Youngstown, Ohio (1908).....	Howard W. Jones.....	5,368 C	Private

¹ President, unless otherwise indicated.

² M—Male; F—Female; C—Coeducational; Co—Co-ordinate.

³ Control, unless otherwise indicated.

⁴ Affiliated but not controlled.

⁵ Enrollment includes women who are admitted for special courses and/or graduate work.

⁶ Enrollment includes men who are admitted for special courses and/or graduate work.

⁷ Spring 1957.

⁸ Formerly named Eastern Illinois State College.

⁹ Subsidized in part by the Dept. of Health, Education and Welfare through the Office of Vocational Rehabilitation.

¹⁰ Rector.

¹¹ Chancellor.

¹² Dean.

¹³ Managing Director.

¹⁴ Acting President.

¹⁵ Interim President.

¹⁶ Acting Chancellor.

¹⁷ Provost.

¹⁸ Director.

¹⁹ Acting Director.

²⁰ Acting Dean.

²¹ Superintendent.

²² Dean of the Faculty.

²³ Chairman, Administrative Committee.

²⁴ Includes New York State College of Ceramics, a contract unit of the State University of New York and an integral part of Alfred University.

²⁵ With public support.

²⁶ Jewish-sponsored; non-sectarian program.

²⁷ Pembroke College is the undergraduate school for women of Brown University.

²⁸ Duplicates deducted.

²⁹ Including Hastings College of the Law.

³⁰ Acting Provost.

³¹ Also campuses at San Dimas and Pomona.

³² Affiliated with Congregational, Baptist and Episcopal churches.

³³ Formerly Colorado A & M College.

³⁴ Formerly Wisconsin State College; made a division of the University of Wisconsin in 1956.

³⁵ Cornell University also operates the New York State Agricultural Experiment Station in Geneva, N. Y., and the Cornell Aeronautical Laboratory in Buffalo, N. Y.

³⁶ Rutgers College is for men only; Douglass College, formerly New Jersey State College for Women, is for women only; campuses at Newark and Camden are coeducational.

³⁷ Quasi-public in control.

³⁸ Fontbonne, Maryville and Webster Colleges are corporate colleges of St. Louis University.

³⁹ Hobart College is for men; William Smith College is for women.

⁴⁰ Legally public; administered and financed privately.

⁴¹ Formerly Polytechnic Institute of Puerto Rico.

⁴² Jackson College is Dept. of Women (Lib. Arts) for Tufts University.

⁴³ Teachers Institute and Seminary College are coeducational; Rabbinical School and Cantors Institute are male only.

⁴⁴ College is independent; theological seminary has Presbyterian affiliation.

⁴⁵ Coeducational in evening; men only during day.

⁴⁶ Mary Washington College is the constituent women's college of the University of Virginia.

⁴⁷ Professional schools located at Baltimore; Maryland State College located at Princess Anne.

⁴⁸ A division of the University of Maryland.

⁴⁹ Branch campus at Sault Ste. Marie, Mich.

⁵⁰ Formerly Michigan State College.

⁵¹ A branch of University of Minnesota at Minneapolis.

⁵² There are also campuses at St. Paul and Duluth.

⁵³ New Church (Swedenborgian).

⁵⁴ Female only at Park Ave. bldg.; coeducational at Bronx bldg.

⁵⁵ State support for teacher education.

⁵⁶ President, on leave.

⁵⁷ Newcomb College is constituent school for women of Tulane University.

⁵⁸ Year of consolidation.

⁵⁹ Maintained by individual Christian Scientists for sons and daughters of Christian Scientists.

⁶⁰ Affiliated with Harvard University.

⁶¹ Radford College is the women's division of Virginia Polytechnic Institute.

⁶² Affiliated with Methodist, Congregational and Presbyterian Churches.

⁶³ Formerly St. Paul's Polytechnic Institute.

⁶⁴ Snow College and College of Southern Utah are branches of Utah State Agricultural College.

⁶⁵ Until July 1, 1957.

⁶⁶ Includes Utica College, Utica, N. Y.

⁶⁷ Other campuses are located at El Paso, Galveston, Houston and Dallas.

⁶⁸ Does not include enrollment of Texas Western College at El Paso. See that entry.

⁶⁹ Part of University of Texas.

⁷⁰ President of Union College and Chancellor of Union University.

⁷¹ Control passing from City to State over 3-year period which began July 1, 1956.

⁷² Administrator.

⁷³ Formerly Oklahoma Agricultural and Mechanical College.

⁷⁴ Permanent site, now under construction, will be 7 mi. N of Colorado Springs.

⁷⁵ Coordinated in a measure with St. Benedict's College.

⁷⁶ Vice President.

⁷⁷ Formerly Texas State College for Women.

⁷⁸ Spring 1956.

⁷⁹ Other campuses at Teaneck and Florham Park, N. J.

⁸⁰ Fall 1957.

⁸¹ Fall 1955.

⁸² Winter 1957-58.

GEOGRAPHY

Miscellaneous Data

Source: U. S. Geological Survey.

Highest point: Mount McKinley, Alaska	20,320 ft.
Lowest point: Death Valley, Calif.	282 ft. below sea level
Most northern point: Pt. Barrow, Alaska	71° 23' 30" N. lat.
Most southern point: Cape Sable, Fla.	25° 07' N. lat.
Most eastern point: West Quoddy Head, Maine	66° 57' W. long.
Most western point: Attu Island, Alaska	172° 27' E. long.
Places farthest apart: Attu, Alaska, to Key Largo, Florida	5,509 mi.
Geographic center: Two Top Peak, South Dakota	$\left\{ \begin{array}{l} 44^{\circ} 58' \text{ N. lat.} \\ 103^{\circ} 38' \text{ W. long.} \end{array} \right.$
Northern boundary: Canada and Great Lakes	3,987 mi.
Southern boundary: Mexico	2,013 mi.

Mountain Peaks in the U. S. 14,000 Feet or More Above Sea Level

Source: U. S. Geological Survey.

Name of summit	State	Height, ft.	Name of summit	State	Height, ft.	Name of summit	State	Height, ft.
McKinley	Alaska	20,320	Quandary	Colo.	14,252	Eolus (Aeolus)	Colo.	14,086
*St. Elias	Alaska	18,008	Wilson	Colo.	14,246	Snowmass	Colo.	14,077
Foraker	Alaska	17,395	White	Calif.	14,246	Columbia	Colo.	14,073
Blackburn	Alaska	16,523	North Palisade	Calif.	14,242	*Augusta	Alaska	14,070
Bona	Alaska	16,421	Cameron	Colo.	14,238	Culebra	Colo.	14,069
Sanford	Alaska	16,208	Shavano	Colo.	14,229	Missouri	Colo.	14,067
*Vancouver	Alaska	15,700	Princeton	Colo.	14,197	Sunlight	Colo.	14,060
*Fairweather	Alaska	15,300	Belford	Colo.	14,197	Split	Calif.	14,058
*Hubbard	Alaska	14,950	Yale	Colo.	14,196	Red Cloud	Colo.	14,050
Bear	Alaska	14,850	Creston Needle	Colo.	14,191	Handies	Colo.	14,049
Hunter	Alaska	14,580	Russell	Calif.	14,190	Bierstadt	Colo.	14,046
*Alverstone	Alaska	14,500	Bross	Colo.	14,169	Humboldt	Colo.	14,044
Whitney	Calif.	14,495	Sill	Calif.	14,162	Langley	Calif.	14,042
Elbert	Colo.	14,431	Shasta	Calif.	14,162	Middle Palisade	Calif.	14,040
Harvard	Colo.	14,420	El Diente	Colo.	14,159	Little Bear	Colo.	14,040
Massive	Colo.	14,418	Maroon	Colo.	14,158	Sherman	Colo.	14,037
Rainier	Wash.	14,410	Tabeguache	Colo.	14,155	Stewart	Colo.	14,032
Williamson	Calif.	14,384	Oxford	Colo.	14,153	Muir	Calif.	14,025
La Plata	Colo.	14,340	Point Success	Wash.	14,150	Tyndall	Calif.	14,025
Blanca	Colo.	14,317	Sneffels	Colo.	14,150	Sunshine	Colo.	14,018
Uncompahgre	Colo.	14,301	San Luis	Colo.	14,146	Wetterhorn	Colo.	14,017
Crestone	Colo.	14,291	Democrat	Colo.	14,142	Wilson	Colo.	14,017
Lincoln	Colo.	14,284	Capitol	Colo.	14,137	Wrangell	Alaska	14,006
Grays	Colo.	14,274	Lindsey	Colo.	14,125	Huron	Colo.	14,005
Antero	Colo.	14,269	Liberty Cap	Wash.	14,112	Barnard	Calif.	14,003
Torreys	Colo.	14,264	Pikes Peak	Colo.	14,110	Pyramid	Colo.	14,000
Evans	Colo.	14,260	Kit Carson	Colo.	14,100	Grizzly	Colo.	14,000
Castle	Colo.	14,259	Windom	Colo.	14,091	North Maroon	Colo.	14,000
Longs	Colo.	14,255						

* Mountains whose summits are on the international boundary between Canada and Alaska.

The Continental Divide

The Continental Divide is a ridge of high ground which runs irregularly north and south through the Rocky Mountains and separates eastward-flowing from westward-

flowing streams. The waters which flow eastward empty into the Atlantic Ocean, chiefly by way of the Gulf of Mexico; those which flow westward empty into the Pacific.

Highest, Lowest, and Average Altitudes in the United States

Source: U. S. Geological Survey.

State	Average elevation, ft.	Highest point	Elevation, ft.	Lowest point	Elevation, ft.
Alabama.....	500	Cheaha Mountain.....	2,407	Gulf of Mexico.....	Sea level
Alaska.....	†	Mount McKinley.....	20,320	Pacific Ocean†.....	Sea level
Arizona.....	4,100	Humphreys Peak.....	12,670	Colorado River.....	100
Arkansas.....	650	Blue Mountain & Magazine Mountain.....	2,800	Ouachita River.....	55
California.....	2,900	Mount Whitney.....	14,495	Death Valley.....	282*
Colorado.....	6,800	Mount Elbert.....	14,431	Arkansas River.....	3,350
Connecticut.....	500	N. Bdy.-Mt. Frissell.....	2,380	Long Island Sound.....	Sea level
Delaware.....	60	Ebright Road.....	450	Atlantic Ocean.....	Sea level
D. C.....	150	Tenleytown.....	420	Potomac River.....	Sea level
Florida.....	100	Sec. 30, T6N, R20W.....	345	Atlantic Ocean.....	Sea level
Georgia.....	600	Brasstown Bald.....	4,784	Atlantic Ocean.....	Sea level
Idaho.....	5,000	Borah Peak.....	12,662	Snake River.....	720
Illinois.....	600	Charles Mound.....	1,241	Mississippi River.....	279
Indiana.....	700	Greensfork Township.....	1,240	Ohio River.....	320
Iowa.....	1,100	In Osceola County.....	1,675	Mississippi River.....	480
Kansas.....	2,000	In T15S R43W.....	4,135	Verdigris River.....	700
Kentucky.....	750	Black Mountain.....	4,145	Mississippi River.....	257
Louisiana.....	100	Driskill Mountain.....	535	New Orleans.....	5*
Maine.....	600	Mount Katahdin.....	5,268	Atlantic Ocean.....	Sea level
Maryland.....	350	Backbone Mountain.....	3,360	Atlantic Ocean.....	Sea level
Massachusetts.....	500	Mount Greylock.....	3,491	Atlantic Ocean.....	Sea level
Michigan.....	900	In Baraga County.....	1,980	Lake Erie.....	572
Minnesota.....	1,200	Misquah Hills.....	2,230	Lake Superior.....	602
Mississippi.....	300	Woodall Mountain.....	806	Gulf of Mexico.....	Sea level
Missouri.....	800	Taum Sauk Mountain.....	1,772	St. Francis River.....	230
Montana.....	3,400	Granite Peak.....	12,799	Kootenai River.....	1,800
Nebraska.....	2,600	Johnson Township.....	5,424	Southeast corner of State.....	840
Nevada.....	5,500	Boundary Peak, White Mountains.....	13,145	Colorado River.....	470
New Hampshire.....	1,000	Mount Washington.....	6,288	Atlantic Ocean.....	Sea level
New Jersey.....	250	High Point.....	1,801	Atlantic Ocean.....	Sea level
New Mexico.....	5,700	Wheeler Peak.....	13,160	Red Bluff Reservoir.....	2,817
New York.....	1,000	Mount Marcy.....	5,344	Atlantic Ocean.....	Sea level
North Carolina.....	700	Mount Mitchell.....	6,684	Atlantic Ocean.....	Sea level
North Dakota.....	1,900	White Butte.....	3,530	Red River.....	750
Ohio.....	850	Campbell Hill.....	1,550	Ohio River.....	433
Oklahoma.....	1,300	Black Mesa.....	4,978	Red River.....	300
Oregon.....	3,300	Mount Hood.....	11,245	Pacific Ocean.....	Sea level
Pennsylvania.....	500	Mt. Davis, Negro Mountains.....	3,213	Delaware River.....	Sea level
Rhode Island.....	200	Jerimoth Hill.....	812	Atlantic Ocean.....	Sea level
South Carolina.....	350	Sassafras Mountain.....	3,560	Atlantic Ocean.....	Sea level
South Dakota.....	2,200	Harney Peak.....	7,242	Big Stone Lake.....	962
Tennessee.....	900	Clingmans Dome.....	6,642	Mississippi River.....	182
Texas.....	1,700	Guadalupe Peak.....	8,751	Gulf of Mexico.....	Sea level
Utah.....	6,100	Kings Peak.....	13,498	Beaverdam Creek.....	2,000
Vermont.....	1,000	Mount Mansfield.....	4,393	Lake Champlain.....	95
Virginia.....	950	Mount Rogers.....	5,720	Atlantic Ocean.....	Sea level
Washington.....	1,700	Mount Rainier.....	14,410	Pacific Ocean.....	Sea level
West Virginia.....	1,500	Spruce Knob.....	4,860	Potomac River.....	240
Wisconsin.....	1,050	Sugarbush Hill.....	1,951	Lake Michigan.....	581
Wyoming.....	6,700	Gannett Peak.....	13,785	Belle Fourche River.....	3,100

* Below sea level. † Figure not available locally. ‡ Others are Bering Sea and Arctic Ocean.

Forest Resources of the United States

Source: U. S. Forest Service.

Nearly 1/3 of the U. S. is forest land including over 800 different kinds of trees. Commercial areas include land capable of producing timber of commercial quantity and quality, and available now or prospectively for such use. Almost all the old-growth forest is in the West. Noncommercial areas include alpine, semidesert, chaparral and other forest types of low timber productivity, though much of it is important for watershed protection.

U. S. Forest Land in Acres, 1953

Old growth	48,055,000
Young growth saw timber ...	132,561,000
Pole timber stands	169,408,000
Seedling and sapling stands .	94,709,000
Nonstocked and other areas .	41,607,000
Total, commercial forest land	484,340,000
Noncommercial forest	163,346,000
Total, all forest land	647,686,000

Rivers of the U. S.

Source: U. S. Geological Survey.

(300 or more miles long)

ALABAMA (315 mi.): From junction of Tallapoosa R. and Coosa R. in Alabama to junction with Tombigbee R. to form Mobile R. and Tensaw R.

ALLEGHENY (325 mi.): From Potter Co. in Pennsylvania to junction with Monongahela R. at Pittsburgh to form Ohio R.

ALTAMAHA-OCMULGEE (392 mi.): From junction of Yellow R. and South R., Newton Co. in Ga. to Atlantic Ocean.

APALACHICOLA-CHATTAHOOCHEE (500 mi.): From Towns Co. in Ga. to Gulf of Mexico in Fla.

ARKANSAS (1,450 mi.): From Lake Co. in Colorado to Mississippi R. in Arkansas.

BIG BLACK (330 mi.): From Webster Co. in Mississippi to Mississippi R.

BIG HORN (336 mi.): From junction of Popo Agie R. and Wind R. in Wyoming to Yellowstone R. in Montana.

BRAZOS (870 mi.): From junction of Salt Fork and Double Mountain Fork in Texas to Gulf of Mexico.

CANADIAN (906 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CEDAR (329 mi.): From south central Minnesota to Iowa R. in Iowa.

CIMARRON (600 mi.): From Colfax Co. in New Mexico to Arkansas R. in Okla.

CLARK FORK-PEND OREILLE (505 mi.): From Silver Bow Co. in Mont. to Columbia R. in British Columbia.

COLORADO (1,440 mi.): From Grand Co. in Colorado to Gulf of California.

COLORADO (840 mi.): From Dawson Co. in Texas to Matagorda Bay.

COLUMBIA (1,214 mi.): From Columbia Lake in British Columbia to Pacific Ocean between Oregon and Washington.

CONNECTICUT (407 mi.): From Connecticut Lakes in New Hampshire to Long Island Sound in Connecticut.

CUMBERLAND (687 mi.): From junction of forks in Harlan Co. in Kentucky to Ohio R.

DAKOTA (Sometimes called JAMES) (710 mi.): From Wells Co. in North Dakota to Missouri R. in South Dakota.

DES MOINES (327 mi.): From Humboldt Co. in Iowa to Mississippi R.

GILA (630 mi.): From southwest New Mexico to Colorado R. in Arizona.

GREEN (360 mi.): From Lincoln Co. in Kentucky to Ohio R. in Indiana.

GREEN (730 mi.): From Sublette Co. in Wyoming to Colorado R. in Utah.

HUDSON (306 mi.): From Essex Co. in New York to Upper New York Bay between New York and New Jersey.

JAMES (710 mi.): From Wells County in North Dakota to Missouri R.

JAMES (340 mi.): From junction of Jackson R. and Cowpasture R. in Virginia to Chesapeake Bay.

KANAWHA-NEW (352 mi.): From junction of North and South Forks of New R. in North Carolina to Ohio R.

LITTLE COLORADO (300 mi.): From Apache Co. in Arizona to Colorado R.

LITTLE MISSOURI (560 mi.): From northeast Wyoming to Missouri R. in North Dakota.

MILK (625 mi.): From junction of forks in Alberta to Missouri R.

MINNESOTA (332 mi.): From Big Stone Lake between Minnesota and South Dakota to Mississippi R. at St. Paul.

MISSISSIPPI (2,330 mi.): From Lake Itasca in Minn. to head of Passes in La.

MISSOURI (2,466 mi.): From junction of Jefferson R., Madison R., and Gallatin R. in Montana to Mississippi R. near St. Louis.

MOBILE-ALABAMA-COOSA (639 mi.): From junction of Etowah R. and Oostanaula R. in Georgia to Mobile Bay.

NEOSHO (460 mi.): From Morris Co. in Kansas to Arkansas R. in Oklahoma.

NIOBRARA (431 mi.): From Niobrara Co. in Wyoming to Missouri R. in Nebraska.

NORTH CANADIAN (760 mi.): From Union Co. in New Mexico to Canadian R. in Oklahoma.

NORTH PLATTE (618 mi.): From Jackson Co. in Colorado to junction with So. Platte R. in Nebraska to form Platte R.

NUECES (338 mi.): From near Edwards-Real Co. border in Texas to Nueces Bay.

OHIO (981 mi.): From junction of Allegheny R. and Monongahela R. at Pittsburgh to Mississippi R. between Illinois and Kentucky.

OSAGE (500 mi.): From junction of Elm Creek and Onion Creek in Kansas to Missouri R. in Missouri.

OUACHITA (605 mi.): From Polk Co. in Arkansas to Red R. in Louisiana.

PEARL (490 mi.): From Neshoba Co. in Mississippi to Gulf of Mexico between Mississippi and Louisiana.

PECOS (735 mi.): From Mora Co. in New Mexico to Rio Grande in Texas.

PEE DEE-YADKIN (435 mi.): From Watauga Co. in N. C. to Winyah Bay in S. C.

PLATTE (310 mi.): From junction of North Platte R. and South Platte R. in Nebraska to Missouri below Omaha.

POWDER (375 mi.): From junction of forks in Johnson Co. in Wyoming to Yellowstone R. in Montana.

RED (1,018 mi.): From junction of forks in Tillman Co. in Oklahoma to Mississippi R. in Louisiana.

RED (Sometimes called **RED RIVER OF THE NORTH**) (545 mi.): From junction of Otter Tail R. and Bois de Sioux R. in Minnesota to Lake Winnipeg in Manitoba.

REPUBLICAN (445 mi.): From junction of North Fork and Arikaree R. in Nebraska to junction with Smoky Hill R. in Kansas to form Kansas R.

RIO GRANDE (1,885 mi.): From San Juan Co. in Colorado to Gulf of Mexico.

ROANOKE (380 mi.): From junction of forks in Montgomery Co. in Virginia to Albemarle Sound in North Carolina.

ROCK (300 mi.): From Washington Co. in Wisconsin to Mississippi R. in Illinois.

SABINE (380 mi.): From junction of forks in Hunt Co. in Texas to Sabine Lake between Texas and Louisiana.

SACRAMENTO (382 mi.): From Siskiyou Co. in California to Suisun Bay.

SAINT FRANCIS (425 mi.): From Iron Co. in Missouri to Mississippi R. in Ark.

SALMON (420 mi.): From Custer Co. in Idaho to Snake R.

SAN JOAQUIN (350 mi.): From junction of forks in Madera Co. in California to Suisun Bay.

SAN JUAN (360 mi.): From Archuleta Co. in Colorado to Colorado R. in Utah.

SANTEE-WATEREE-CATAWBA (538 mi.): From McDowell Co. in N. C. to Atlantic Ocean in S. C.

SAVANNAH (314 mi.): From junction of Tugaloo R. and Seneca R. in South Carolina to Atlantic Ocean between Georgia and South Carolina.

SMOKY HILL (540 mi.): From Cheyenne Co. in Colorado to junction with Republican R. in Kansas to form Kansas R.

SNAKE (1,038 mi.): From Ocean Plateau in Wyoming to Columbia R. in Wash.

SOUTH PLATTE (424 mi.): From Park Co. in Colorado to junction with North Platte R. in Nebraska to form Platte R.

SUSQUEHANNA (444 mi.): From Otsego Co. in New York to Chesapeake Bay in Maryland.

TALLAHATCHIE (301 mi.): From Tippah Co. in Mississippi to junction with Yalobusha R. to form Yazoo R.

TENNESSEE (652 mi.): From junction of Holston R. and French Broad R. near Knoxville to Ohio R. in Kentucky.

TOMBIGBEE (409 mi.): From junction of forks near Amory, Mississippi, to junction with Alabama R. in Alabama to form Mobile R. and Tensaw R.

TRINITY (360): From junction of forks in Kaufman Co. in Texas to Galveston Bay.

WABASH (475 mi.): From Darke Co. in Ohio to Ohio R. between Ill. and Ind.

WASHITA (500 mi.): From Hemphill Co. in Texas to Red R. in Oklahoma.

WHITE (690 mi.): From Madison Co. in Arkansas to Mississippi R.

WISCONSIN (430 mi.): From Vilas Co. in Wisconsin to Mississippi R.

YELLOWSTONE (671 mi.): From Park Co. in Wyoming to Missouri R. in N. Dak.

Coastline of the United States

Source: U. S. Coast and Geodetic Survey.

State	Lengths in statute miles		
	General coastline*	Tidal shoreline, general†	Tidal shoreline, detailed‡
Maine.....	228	676	3,478
New Hampshire.....	13	14	131
Massachusetts.....	192	453	1,519
Rhode Island.....	40	156	384
Connecticut.....	...	96	618
New York.....	127	470	1,850
New Jersey.....	130	398	1,792
Pennsylvania.....	...	...	89
Delaware.....	28	79	381
Maryland.....	31	452	3,190
Virginia.....	112	567	3,315
North Carolina.....	301	1,030	3,375
South Carolina.....	187	758	2,876
Georgia.....	100	603	2,344
Florida (Atlantic).....	399	618	3,035
Total Atlantic coast.....	1,888	6,370	28,377
Florida (Gulf).....	798	1,658	5,391
Alabama.....	53	199	607
Mississippi.....	44	155	359
Louisiana.....	397	985	7,721
Texas.....	367	1,100	3,359
Total Gulf coast.....	1,659	4,097	17,437
California.....	840	1,190	3,427
Oregon.....	296	312	1,410
Washington.....	157	908	3,026
Total Pacific coast.....	1,293	2,410	7,863
Total U. S.....	4,840	12,877	53,677

* Figures are lengths of general outline of seacoast. Measurements made with unit measure of 30 minutes of latitude on charts as near scale of 1:1,200,000 as possible. Shoreline of bays and sounds is included to point where they narrow to width of unit measure, and distance across at such point is included. † Measurements made with unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. Shoreline of bays, sounds and other bodies of water included to point where they narrow to width of 3 statute miles, and distance across at such point is included. ‡ Figures obtained in 1939-40 with recording measure on largest scale maps and charts then available. Shoreline of bays, sounds and other bodies of water included to head of tide-water, or to point where they narrow to width of 100 feet.

U. S. Water Area*

Source: U. S. Bureau of the Census.

	Sq. mi.
Atlantic Ocean	2,298
Chesapeake Bay	3,237
Delaware Bay	665
Erie, Lake	5,002
Georgia and Juan de Fuca, Straits of	1,610
Huron, Lake	8,975
Long Island Sound	1,299
Mexico, Gulf of	3,837
Michigan, Lake	22,178
New York Harbor	92
Ontario, Lake	3,033
Pacific Ocean	343
Puget Sound	561
St. Clair, Lake	116
Superior, Lake	21,118
Total	74,364

* Other than inland water.

WEATHER AND CLIMATE

Devastating North Atlantic Hurricanes of the 20th Century

The following is a selected list of North Atlantic hurricanes based on casualties, damage and general public interest. Facts about each storm are taken from Weather Bureau records, although in some cases only estimates of wind speed are available. Data given in this list pertain only to U. S. land areas except where indicated otherwise.

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1900, Sept. 8.....	Galveston, Tex.	Galveston, Tex. (120* mph)	6,000	\$ 20	Damage due to both winds and storm wave. Galveston Is. inundated.
1909, Sept. 10-12....	La.; Miss.	New Orleans, La. (68 mph)	350	5	Winds 50-75 mi. W of New Orleans, where deaths occurred, were much stronger than 68 mph.
1915, Aug. 5-24.....	East Tex.; La.	Galveston, Tex. (120 mph)	275	50	Water 5-6 ft. deep in Galveston business district. 90% of homes demolished. Warnings issued well ahead of time.
1915, Sept. 22-Oct. 2..	Mid-Gulf Coast	Burrwood, La. (140 mph)	275	13	Many casualties due to persons insisting on staying in low-lying areas despite warnings.
1919, Sept. 2-14.....	Fla.; La.; Tex.	Sand Key, Fla. (84† mph)	284	22	488 persons drowned at sea.
1926, Sept. 6-22.....	Fla.; Ala.	Miami Beach, Fla. (132 mph)	100	105	Most deaths were in Miami area. Said to have been one of most destructive storms of century.
1928, Sept. 6-20.....	Southern Fla.	Lake Okeechobee, Fla. (75† mph)	1,836	25	1,870 injured. Nearly all deaths were in Lake Okeechobee area. Winds estimated as high as 160 mph caused Lake to overflow into populated areas.
1935, Aug. 31-Sept. 8.	Southern Fla.	Tampa, Fla. (75 mph)	376	6	Sustained winds over Florida Keys est. 150-200 mph. Remembered as "Labor Day Storm," one of most violent on record.
1935, Oct. 30-Nov. 8...	Southern Fla.	Miami, Fla. (75 mph)	5	6	Called "The Yankee Storm" because it moved in from N. E. It was of small diameter and its wind covered only narrow band.
1938, Sept. 16-22.....	Long Island, N. Y. Southern New Eng.	Blue Hills Obs., Mass. (186 mph)	600	250	Unusually destructive. Storm center moved as fast as 56 mph at times. 1,754 injured. Damage est. as high as \$330 million.
1940, Aug. 5-15.....	Ga.; S. C.; N. C.	Savannah, Ga. (73 mph)	50	3	30 of deaths were due to disastrous flooding inland as far west as Tennessee.
1944, Sept. 8-16.....	N. C. to New England	Cape Henry, Va. (134 mph)	46	100	344 deaths at sea. Shipping lanes were crowded with war-time activity.
1944, Oct. 13-21.....	Fla. to Carolinas	Dry Tortugas Is. (120 mph)	18	100	About 300 were killed in Cuba area before storm reached U. S. Evacuation of thousands from threatened areas in Fla. prevented higher toll.
1945, Aug. 24-29.....	Texas	Seadrift, Tex. (135 mph)	3	20	Several other coastal localities recorded 135 mph. One of most intense hurricanes in Texas.
1945, Sept. 11-19.....	Fla.; Ga.; S. C.	Carysfort Reef Light, Fla. (138 mph)	4	60	22 casualties in Bahamas. Damage mostly in Dade Co., Fla. Evacuation of 50,000 persons

Date	Areas hardest hit	Land stations with highest wind speed	Deaths (U. S. only)	Est. damage (millions)	Remarks
1947, Sept. 10-19.....	Fla.; Mid-Gulf Coast	Hillsboro Light, Fla. (155 mph)	51	110	Damage especially heavy along Gulf Coast. Onshore winds resulted in high water.
1949, Aug. 23-29.....	Fla. to Carolinas	Jupiter, Fla. (153 mph)	2	52	Center of storm crossed Lake Okeechobee. Levees held back water, which rose 12 ft. (Compare casualties with 1928.)
1950, Oct. 15-19.....	Florida	Miami, Fla. (122 mph)	4	28	"KING"—small but violent storm. Struck Miami, then moved up Florida peninsula.
1954, Aug. 26-31.....	N. C. to Maine	Block Island, R. I. (135 mph)	60	461	"CAROL"—more damage than any other single storm on record for U. S. Water and high waves flooded low-lying areas 1,000 injuries in Long Island-New England area.
1954, Sept. 6-11.....	N. J. to Maine	Blue Hill Obs., Mass. (101 mph)	21	43	"EDNA"—wind est. up to 135 mph at Massachusetts Bay.
1954, Oct. 5-16.....	S. C. to N. Y.	(See Remarks)	95	252	"HAZEL"—several N. C. localities had winds of 130-150 mph with unusually heavy wave damage resulting. Est. 400-1,000 casualties in Haiti. In Canada there were 78 deaths, mostly due to flooding.
1955, Aug. 11-13.....	N. C. to Pa. and N. Y.	Ft. Macon, N. C. (100 mph)	25	46	"CONNIE"—center passed over Morehead City and Beaufort flooding these cities. 12.35 in. of rain in New York City.
1955, Aug. 17-19.....	N. C. to New England	Wilmington, N. C. (74 mph)	184	832	"DIANE"—worst floods in history in Southern New England. 16 in. of rain in Hartford area.
1955, Sept. 19-20.....	North Carolina	Beaufort, N. C. (120* mph)	7	88	"IONE"—center passed over Morehead City and Beaufort but lost force rapidly thereafter. Recurved to sea south of Norfolk.
1956, Sept. 24-26.....	Northwest Florida	Burrwood, La. (84 mph)	15	25	"FLOSSY"—center passed in northeasterly direction over Burrwood, La., at 4 a.m. and over Pensacola, Fla., at 3 p.m. on Sept. 24. Lost force rapidly thereafter, but dumped heavy rains in southeastern states.
1957, June 26-28.....	Southwest Texas and Southwest Louisiana	Lake Charles, La. (97 mph)	390	150	"AUDREY"—gave an early start to the hurricane season and wiped out Cameron, La. Two weeks later "BERTHA," a less destructive tropical storm, struck in exactly the same area.

* Estimated. † Wind measuring equipment disabled at speed indicated.

Tropical Storms and Hurricanes, 1887-1957

	Jan.-Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
No. of tropical storms.....	2	9	33	38	127	187	134	26	4	560
No. of tropical storms which reached hurricane intensity.....	1	2	14	20	94	119	62	11	2	325

Groups of Tornadoes That Caused Outstanding Damage

Source: Data for 1884-1953, reprinted from *Tornadoes of the United States* by S. D. Flora. Copyright, 1954, by University of Oklahoma Press. Used by permission.

Date	Tornadoes in group	Deaths	Property losses	States in which storms occurred
1884, Feb. 19.....	60	800	*	Mississippi, Alabama, North and South Carolina, Tennessee, Kentucky, Indiana
1917, May 26-27.....	*	249	\$ 5,555,000	Illinois, Indiana, Arkansas, Kentucky, Tennessee, Alabama, Mississippi
1920, Apr. 20.....	6	220	3,525,000	Mississippi, Alabama, Tennessee
1924, Apr. 29-30.....	22	115	4,372,300	Oklahoma, Arkansas, Alabama, Georgia, Louisiana, North and South Carolina, Virginia
1924, June 28.....	4	96	13,050,000	Ohio and Pennsylvania
1925, Mar. 18.....	8	792	17,872,000	Missouri, Illinois, Indiana, Kentucky, Tennessee, Alabama
1927, May 8-9.....	36	227	7,877,000	Texas, Louisiana, Missouri, Nebraska, Indiana, Michigan
1932, Mar. 21.....	27	321	5,514,000	Alabama, Mississippi, Georgia, Tennessee
1936, Apr. 5-6.....	22	498	21,800,000	Arkansas, Alabama, Tennessee, Georgia, South Carolina
1944, June 23.....	4	153	5,160,000	Pennsylvania, West Virginia, Maryland
1947, Apr. 9-10.....	8	167	10,030,750	Texas, Oklahoma, Kansas
1952, Mar. 21-22.....	31	343	15,327,100	Arkansas, Tennessee, Missouri, Mississippi, Alabama, Kentucky
1953, June 7-9.....	12	234	93,230,840	Michigan, Ohio, and New England states.
1954, Mar. 13.....	4	8	9,000,000	Georgia. Heavy damage at Lawson Air Base and Ft. Benning.
1955, May 25.....	13	102	11,747,500	Oklahoma and Kansas. Completely destroyed Udall, Kans., and part of Blackwell, Okla.
1956, Apr. 2-3.....	(†)	39	17,000,000	Oklahoma, Kansas, Tennessee, Michigan, Wisconsin
1956, Apr. 15.....	(†)	25	1,500,000	Alabama
1957, Apr. 2.....	(†)	17	2,000,000	Texas and Oklahoma
1957, May 15.....	(†)	21	500,000	Texas
1957, May 20-21.....	(†)	48	15,000,000	Missouri
1957, Dec. 18.....	(†)	16	8,000,000	Illinois, Missouri

* Not definitely known; believed to be large. † No information available.
Additional storms and hurricanes may be listed in *News Record of 1958*.

CLIMATE OF SELECTED U. S. CITIES

Source: U. S. Weather Bureau.

Asterisk (*) indicates less than one-half; T—indicates trace; n.a.—indicates not available.

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
BAKERSFIELD, CALIFORNIA (KERN COUNTY AIRPORT) Lat 35° 25' N, Long 119° 03' W									
January.....	57	37	82	14	1.02	T	6	n.a.	71
April.....	76	50	100	30	0.75	T	5	n.a.	46
July.....	101	67	118	46	0.01	0.0	*	n.a.	29
October.....	81	52	104	31	0.37	0.0	2	n.a.	42
Annual.....	79	51	118	13	6.36	T	35	n.a.	47
CARIBOU, MAINE (MUNICIPAL AIRPORT) Lat 46° 52' N, Long 68° 01' W									
January.....	18	-1	51	-32	2.24	21.1	14	n.a.	69
April.....	43	26	80	2	2.63	6.0	13	n.a.	58
July.....	75	54	95	40	4.03	0.0	14	n.a.	58
October.....	51	33	79	14	3.47	1.6	11	n.a.	60
Annual.....	47	28	96	-41	35.88	101.3	154	n.a.	62
CHICAGO, ILLINOIS (MIDWAY AIRPORT) Lat 41° 47' N, Long 87° 45' W									
January.....	33	17	67	-20	1.84	6.9	10	43	70
April.....	58	39	91	17	2.82	0.5	13	52	54
July.....	85	64	105	49	2.73	0.0	9	72	51
October.....	64	44	91	14	2.56	0.3	7	64	51
Annual.....	59	41	105	-23	32.72	34.6	119	59	58

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
DALLAS, TEXAS (LOVE FIELD) Lat 32° 51' N, Long 96° 51' W									
January.....	55	36	88	−3	2.47	1.2	8	45	62
April.....	77	56	96	30	3.87	0.0	9	58	56
July.....	95	76	111	56	1.97	0.0	5	79	49
October.....	80	58	100	26	2.67	0.0	6	67	50
Annual.....	77	56	111	−3	34.42	1.7	82	67	54

DENVER, COLORADO (STAPLETON AIRFIELD) Lat 39° 46' N, Long 104° 53' W									
January.....	42	16	76	-29	0.50	8.4	6	67	45
April.....	61	34	86	4	2.05	9.8	9	61	40
July.....	87	58	104	42	1.36	0.0	9	70	32
October.....	66	37	90	-2	1.01	2.5	6	73	34
Annual.....	64	36	105	-30	14.20	55.6	86	69	38

DULUTH, MINNESOTA (CITY OFFICE) Lat 46° 47' N, Long 92° 06' W									
January.....	19	2	55	-41	1.01	11.1	10	46	74
April.....	47	30	88	-5	2.21	4.9	9	58	60
July.....	76	56	106	41	3.31	0.0	11	67	61
October.....	54	37	85	8	1.96	1.2	10	48	61
Annual.....	48	30	106	-41	26.83	56.0	126	55	66

GREAT FALLS, MONTANA (MUNICIPAL AIRPORT) Lat 47° 29' N, Long 111° 21' W									
January.....	32	14	62	-33	0.55	8.2	8	50	63
April.....	56	33	87	-6	0.95	4.0	8	63	46
July.....	84	55	102	42	1.35	T	8	80	37
October.....	59	37	91	7	0.72	2.7	6	61	48
Annual.....	56	34	105	-35	14.03	53.5	98	63	51

KANSAS CITY, MISSOURI (MUNICIPAL AIRPORT) Lat 39° 07' N, Long 94° 35' W									
January.....	39	21	75	-20	1.43	4.5	7	50	64
April.....	66	46	95	16	3.61	0.6	11	59	51
July.....	91	71	112	53	2.83	0.0	8	78	48
October.....	70	49	98	17	2.93	T	7	68	49
Annual.....	66	46	113	-22	35.31	17.2	101	62	55

LOS ANGELES, CALIFORNIA (CITY OFFICE) Lat 34° 03' N, Long 118° 14' W									
January.....	65	45	90	28	2.38	T	7	70	46
April.....	71	52	100	36	1.17	0.0	4	65	51
July.....	83	62	109	49	T	0.0	*	80	49
October.....	77	56	104	40	0.50	0.0	2	73	47
Annual.....	74	54	110	28	14.54	T	39	73	47

MIAMI, FLORIDA (CITY OFFICE) Lat 25° 47' N, Long 80° 11' W									
January.....	74	63	83	31	2.15	0.0	8	66	58
April.....	80	69	91	44	3.44	0.0	7	73	56
July.....	87	76	95	65	4.36	0.0	15	65	64
October.....	83	73	91	52	7.88	0.0	15	62	63
Annual.....	81	70	95	27	47.20	0.0	130	67	60

MIAMI BEACH, FLORIDA Lat 25° 47' N, Long 80° 08' W									
January.....	76	64	84	35	2.04	0.0	7	n.a.	n.a.
April.....	81	70	90	48	2.61	0.0	8	n.a.	n.a.
July.....	88	77	98	69	3.83	0.0	15	n.a.	n.a.
October.....	84	74	92	55	7.07	0.0	15	n.a.	n.a.
Annual.....	82	71	98	35	42.90	0.0	126	n.a.	n.a.

Month	Temperature				Precipitation			Percentage possible sunshine	Percentage relative humidity at noon
	Average maximum	Average minimum	Absolute maximum	Absolute minimum	Amount	Snowfall, inches	Days with precipitation		
NASHVILLE, TENNESSEE (BERRY FIELD) Lat 36° 07' N, Long 86° 41' W									
January.....	49	31	78	—10	4.93	2.6	12	42	67
April.....	71	49	90	25	3.69	T	11	60	51
July.....	91	69	107	51	3.96	0.0	10	69	53
October.....	74	50	94	26	2.52	T	7	65	51
Annual.....	71	50	107	—13	45.03	8.2	120	59	56

NEW ORLEANS, LOUISIANA (CITY OFFICE) Lat 29° 57' N, Long 90° 04' W

January.....	64	48	83	15	4.78	0.1	10	49	67
April.....	78	62	91	38	5.45	0.0	7	63	59
July.....	90	76	102	66	7.09	0.0	15	58	64
October.....	80	65	94	40	3.66	0.0	6	69	58
Annual.....	78	63	102	7	63.54	0.2	120	59	62

NEW YORK, NEW YORK. (BATTERY PLACE) Lat 40° 42' N, Long 74° 01' W

January.....	40	26	71	-6	3.46	7.4	12	51	62
April.....	58	42	91	12	3.22	1.0	11	60	54
July.....	82	67	102	54	4.24	0.0	11	65	57
October.....	65	50	90	27	3.04	T	9	63	58
Annual.....	61	46	102	-14	42.03	30.0	124	60	59

PHOENIX, ARIZONA (SKY HARBOR AIRPORT) Lat 33° 26' N, Long 112° 01' W

January.....	65	35	85	16	0.60	T	4	76	48
April.....	84	50	104	32	0.35	T	2	88	27
July.....	105	75	118	61	0.70	0.0	5	83	31
October.....	88	54	105	36	0.40	0.0	3	88	32
Annual.....	86	53	118	16	7.16	T	36	85	33

SALT LAKE CITY, UTAH (MUNICIPAL AIRPORT) Lat 40° 46' N, Long 111° 58' W

January.....	36	17	60	-22	1.20	13.9	10	46	70
April.....	63	37	85	14	1.76	2.9	9	67	42
July.....	92	61	106	41	0.61	0.0	5	82	27
October.....	67	39	88	18	1.34	0.5	7	72	42
Annual.....	64	39	106	-30	14.74	51.6	87	68	46

SAN FRANCISCO, CALIFORNIA (CITY OFFICE) Lat 37° 47' N, Long 122° 25' W

January.....	55	45	78	29	4.03	T	11	53	68
April.....	62	49	89	40	1.49	0.0	6	69	65
July.....	64	53	99	47	0.01	0.0	1	64	75
October.....	68	54	96	43	1.07	0.0	5	69	62
Annual.....	63	51	101	27	20.51	T	69	65	67

SEATTLE, WASHINGTON (CITY OFFICE) Lat 47° 36' N, Long 122° 20' W

January.....	45	36	67	3	4.49	5.2	18	28	80
April.....	59	44	87	30	1.94	T	13	49	63
July.....	75	56	100	46	0.52	0.0	5	61	63
October.....	61	48	82	29	3.08	T	14	36	79
Annual.....	60	46	100	3	31.92	8.9	151	45	72

WASHINGTON, D. C. (CITY OFFICE) Lat 38° 54' N, Long 77° 03' W

January.....	44	29	80	-14	3.41	6.0	11	46	56
April.....	65	45	95	15	3.20	0.4	11	57	45
July.....	87	68	106	52	4.11	0.0	11	64	52
October.....	68	49	96	26	2.97	0.1	8	61	51
Annual.....	66	48	106	-15	41.44	19.5	124	58	51

English Language Daily and Sunday U. S. Newspapers

(as of Sept. 30, 1957)

Source: Editor & Publisher.

State	Morning papers & circulation		Evening papers & circulation		Total M & E & circulation		Sunday papers & circulation	
Alabama.....	3	197,163	15	440,339	18	637,502	14	541,827
Arizona.....	4	137,666	9	128,756	13	266,422	5	204,254
Arkansas.....	6	149,884	29	226,537	35	375,621	8	290,372
California.....	18	1,732,164	107	2,868,741	125	4,600,905	22	3,466,278
Colorado.....	4	200,950	22	394,512	26	595,462	9	611,829
Connecticut.....	6	204,202	19	549,974	25	754,176	6	458,874
Delaware.....	1	28,512	2	79,982	3	108,494	...	...
District of Columbia.....	1	390,649	2	430,554	3	821,203	2	706,330
Florida.....	13	818,724	29	557,546	42	1,376,270	29	1,293,470
Georgia.....	6	379,959	24	501,839	30	881,798	10	792,837
Idaho.....	4	64,066	11	75,123	14	139,189	4	87,418
Illinois.....	10	1,589,569	77	2,409,857	86	3,999,426	18	3,114,239
Indiana.....	10	437,168	77	1,155,389	87	1,592,557	18	1,022,541
Iowa.....	4	301,656	40	618,829	44	920,485	8	794,943
Kansas.....	4	202,383	50	509,120	53	711,503	14	495,550
Kentucky.....	6	302,362	22	402,954	27	705,316	12	509,982
Louisiana.....	4	329,265	15	410,873	19	740,138	10	643,400
Maine.....	5	183,747	4	56,391	9	240,138	1	96,072
Maryland.....	4	227,216	8	529,114	12	756,330	3	669,891
Massachusetts.....	6	987,815	45	1,520,450	51	2,508,265	9	1,534,691
Michigan.....	2	524,496	53	1,865,069	55	2,389,565	12	2,063,656
Minnesota.....	4	362,769	25	656,855	29	1,019,624	5	904,915
Mississippi.....	4	69,755	16	202,296	20	272,051	10	181,843
Missouri.....	9	788,297	49	1,073,364	57	1,861,661	13	1,461,543
Montana.....	4	93,024	14	75,791	18	168,815	10	150,698
Nebraska.....	3	166,106	17	282,335	20	448,441	6	343,394
Nevada.....	2	26,868	6	48,385	8	75,253	3	58,291
New Hampshire.....	1	26,331	9	98,403	9	124,734	1	42,001
New Jersey.....	5	395,262	20	977,386	25	1,372,648	8	860,723
New Mexico.....	2	46,426	16	117,104	18	163,530	13	136,360
New York.....	21	5,126,812	73	3,549,272	94	8,676,084	19	9,252,143
North Carolina.....	9	511,445	38	522,703	47	1,034,148	16	699,477
North Dakota.....	2	34,715	9	124,508	11	159,223	2	84,982
Ohio.....	8	784,671	90	2,625,895	98	3,410,566	18	2,085,048
Oklahoma.....	8	296,669	44	411,672	52	708,341	40	633,846
Oregon.....	4	260,225	18	343,936	22	604,161	8	586,256
Pennsylvania.....	28	1,391,039	99	2,766,652	125	4,157,691	16	3,331,776
Rhode Island.....	1	58,758	6	240,046	7	298,804	2	191,336
South Carolina.....	8	323,330	10	139,606	18	462,936	7	347,540
South Dakota.....	1	2,910	11	158,615	12	161,525	4	110,124
Tennessee.....	7	473,009	22	538,484	29	1,011,493	12	805,621
Texas.....	22	1,161,867	89	1,644,449	111	2,806,316	75	2,449,482
Utah.....	1	98,017	4	134,346	5	232,363	4	226,473
Vermont.....	2	50,258	8	43,517	10	93,775	1	11,783
Virginia.....	10	389,057	22	446,821	32	835,878	12	569,180
Washington.....	6	324,148	21	607,403	27	931,551	10	834,098
West Virginia.....	9	243,930	21	258,547	30	502,477	9	401,440
Wisconsin.....	3	261,769	35	846,969	38	1,108,738	6	887,085
Wyoming.....	6	36,232	3	31,297	9	67,529	3	37,318
Total U. S., Sept. 30, 1957.....	309	23,170,552	1,453	34,634,893	1,755	57,805,445	544	47,044,349
Total U. S., Sept. 30, 1956.....	314	22,491,500	1,454	34,610,010	1,761	57,101,510	546	47,162,246
Total U. S., Sept. 30, 1955.....	316	22,183,408	1,454	33,963,951	1,760	56,147,359	541	46,447,658
Total U. S., Sept. 30, 1954.....	317	21,705,436	1,448	33,367,044	1,765	55,072,480	544	46,176,450
Total U. S., Sept. 30, 1953.....	327	21,412,474	1,458	33,059,812	1,785	54,472,286	544	45,948,554
Total U. S., Sept. 30, 1952.....	327	21,159,527	1,459	32,791,088	1,786	53,950,615	545	46,210,136
Total U. S., Sept. 30, 1951.....	319	21,222,525	1,454	32,795,413	1,773	54,017,938	543	46,279,358
Total U. S., Sept. 30, 1950.....	322	21,266,126	1,450	32,562,946	1,772	53,829,072	549	46,582,348
Total U. S., Sept. 30, 1949.....	329	21,004,650	1,451	31,840,901	1,780	52,845,551	546	46,398,968

NOTE: Idaho, Ill., Kans., Ky., Mo., N. H. and Pa. "All-Day" Newspapers are listed in morning and evening columns, and their circulations are divided between morning and evening figures. Adjustments have been made in State and U. S. totals. Alaska has 6 evening newspapers and 8 weekly newspapers.

U. S. Daily Newspapers

Source: Audit Bureau of Circulations: Publishers' Statements for 6-mo. period ending Mar. 31, 1958.

(NOTE: Where two or more newspapers are listed under a city, the order is according to size of total daily circulation.)

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Akron (Ohio): BEACON JOURNAL.....		164,578	174,183
Albany (N. Y.): TIMES-UNION.....	62,082		122,001
Atlanta: CONSTITUTION (M); JOURNAL (E); JOURNAL & CONSTITUTION (S).....	194,575	257,043	503,770
Baltimore: SUN.....	193,520 ^a	217,412 ^a	319,488
NEWS-POST (E); AMERICAN (S).....		228,800 ^a	322,528
Birmingham: POST-HERALD (M); NEWS (E & S).....	96,574	189,313	225,989
Boston: RECORD (M); AMERICAN (E); ADVERTISER (S).....	357,906 ^a	178,170 ^a	499,660
HERALD (M & S); TRAVELER (E).....	181,012 ^a	186,088 ^a	299,415
GLOBE.....	194,106 ^a	152,255 ^a	404,066
CHRISTIAN SCIENCE MONITOR.....		168,685	
Buffalo: NEWS.....		296,588	
COURIER-EXPRESS.....	167,450		313,340
Charleston (W. Va.): GAZETTE (M); DAILY MAIL (E); GAZETTE-MAIL (S).....	78,781	59,209	117,778
Charlotte (N. C.): OBSERVER.....	153,448		171,924
Chattanooga: TIMES (M & S); NEWS-FREE PRESS (E).....	51,612	58,077	80,562
Chicago: TRIBUNE.....	900,895		1,276,767
NEWS.....		565,674 ^a	
SUN-TIMES.....	539,090 ^a		648,115
AMERICAN.....		477,250 ^a	632,602
WALL STREET JOURNAL (Midwest Edition).....	163,564 ^a		
Cincinnati: ENQUIRER.....	203,675		282,634
POST.....		157,695	
TIMES-STAR.....		149,443	
Cleveland: PRESS.....		320,721	
PLAIN DEALER.....	305,579		513,527
NEWS.....		138,184	
Columbus (Ohio): DISPATCH.....		182,366	246,497
Dallas: NEWS.....	207,742		216,927
TIMES HERALD.....		177,830	188,411
Dayton (Ohio): NEWS.....		150,398	178,652
Denver: POST.....		251,880 ^a	338,237
ROCKY MOUNTAIN NEWS.....	155,632		164,081
Des Moines: REGISTER (M & S); TRIBUNE (E).....	220,221	128,824	515,599
Detroit: NEWS.....		472,191	588,989
FREE PRESS.....	453,598		503,354
TIMES.....		400,874	506,252
Fort Worth: STAR-TELEGRAM.....	114,283	137,972	225,864
Fresno (Calif.): BEE.....		100,827	117,752
Grand Rapids (Mich.): PRESS.....		116,434	
Harrisburg (Pa.): PATRIOT (M); NEWS (E); PATRIOT-NEWS (S).....	41,093	79,359	137,436
Hartford (Conn.): TIMES.....		121,387	
COURANT.....	103,754		147,561
Houston: CHRONICLE.....		218,986 ^a	245,460
POST.....	216,209		225,374
PRESS.....		109,396 ^a	
Indianapolis: STAR.....	208,051		322,530
NEWS.....		171,214	
TIMES.....		91,330	105,685
Jacksonville (Fla.): TIMES-UNION.....	156,907		162,046
Kansas City (Mo.): TIMES (M); STAR (E & S).....	333,213	338,746	358,583
Knoxville: NEWS-SENTINEL.....		100,252	146,105
Little Rock: ARKANSAS GAZETTE.....	88,068		97,449
DEMOGRAT.....		86,857	100,527
Long Beach (Calif.): INDEPENDENT PRESS-TELEGRAM.....	43,239	107,199	140,725
Los Angeles: TIMES.....	484,450		878,219
EXAMINER.....	356,000		715,229
HERALD & EXPRESS.....		342,055 ^a	
MIRROR-NEWS.....		319,422 ^a	
Louisville: COURIER-JOURNAL (M & S); TIMES (E).....	217,305	176,309	313,034
Memphis: COMMERCIAL APPEAL (M & S); PRESS SCIMITAR (E).....	207,977	148,456	255,182
HERALD.....	302,264		366,584
		141,997 ^a	117,384

¹ Unless otherwise indicated, figure is an average of the Monday-through-Saturday circulation. ² Figure is an average of the Monday-through-Friday circulation; i.e., Saturday circulation, if any, has not been used in making the average. ³ Post office address is Garden City, N. Y.

City and newspaper	Net Paid Circulation		
	Morning ¹	Evening ¹	Sunday
Milwaukee: JOURNAL SENTINEL.....		362,417	501,907
Minneapolis: TRIBUNE (M & S); STAR (E).....	188,480		236,336
Nashville: TENNESSEAN.....	208,236	290,960	630,035
Nassau County (Long Island, N. Y.): NEWSDAY ²	120,527		195,531
New Orleans: TIMES-PICAYUNE (M); STATES (E); TIMES-PICAYUNE-STATES (S).....		282,783	
New York City: NEWS.....	194,892	102,477 ²	292,286
MIRROR.....	2,014,542 ²		3,564,864
TIMES.....	834,066 ²		1,424,886
JOURNAL-AMERICAN.....	633,106 ²		1,291,134
WORLD-TELEGRAM & SUN.....		580,006 ²	818,012
HERALD TRIBUNE.....		473,732 ²	
POST.....	377,400 ²		567,265
LONG ISLAND PRESS (Jamaica, N. Y.).....		351,439 ²	282,552
WALL STREET JOURNAL (Eastern Edition).....		283,967	368,157
Newark (N. J.): NEWS.....	225,521 ²		
STAR-LEDGER.....		290,916 ²	352,061
Norfolk-Portsmouth-South Norfolk: VIRGINIAN PILOT (M); NORFOLK-LEDGER-DISPATCH & PORTSMOUTH STAR (E); VIRGINIAN PILOT & PORTSMOUTH STAR (S).....	228,273		376,924
Oakland (Calif.): TRIBUNE.....	109,135	96,942	143,215
Oklahoma City: OKLAHOMAN (M & S); TIMES (E).....		210,537	240,809
Omaha: WORLD-HERALD.....	145,969	109,514	238,755
Philadelphia: BULLETIN.....	126,774	121,951	261,195
INQUIRER.....		713,228 ²	743,971
NEWS.....	604,977 ²		1,108,209
Phoenix: REPUBLIC (M & S); GAZETTE (E).....		171,870 ²	116,893
Pittsburgh: PRESS.....	117,505	73,479	172,444
POST-GAZETTE.....		305,908	526,991
SUN-TELEGRAPH.....	274,058		
Portland (Maine): PRESS-HERALD (M); EXPRESS (E); TELEGRAM (S).....		175,589	405,970
Portland (Oreg.): OREGONIAN.....	49,182	28,126	92,062
OREGON JOURNAL.....	231,829		295,740
Providence (R. I.): JOURNAL (M & S); BULLETIN (E).....		179,106 ²	202,214
Raleigh (N. C.): NEWS & OBSERVER (M & S); TIMES (E).....	56,757	146,292	187,408
Richmond (Va.): TIMES-DISPATCH (M & S); NEWS-LEADER (E).....	123,539	22,446	134,289
Rochester (N. Y.): DEMOCRAT & CHRONICLE (M & S); TIMES-UNION (E).....	134,911	110,385	187,903
Sacramento: BEE.....	123,950	126,688	180,768
St. Louis: POST-DISPATCH.....		149,319	
GLOBE-DEMOCRAT.....		392,212 ²	523,737
St. Paul: PIONEER PRESS (M & S); DISPATCH (E).....	319,815 ²		376,238
St. Petersburg (Fla.): TIMES.....	92,173	122,661	188,724
Salt Lake City: TRIBUNE (M & S); DESERET NEWS-SALT LAKE TELEGRAM (E).....	104,563		107,197
San Antonio: EXPRESS (M); NEWS (E); EXPRESS-NEWS (S).....	98,017	85,775	179,301
LIGHT.....	67,050 ²	75,622 ²	106,475
San Diego: EVENING TRIBUNE.....		104,556 ²	130,138
UNION.....		116,348	
San Francisco: EXAMINER.....	85,894		182,882
CHRONICLE.....	250,417		490,468
CALL-BULLETIN.....	206,105		266,682
Seattle: TIMES.....		141,532 ²	
POST-INTELLIGENCER.....		215,508 ²	244,707
Shreveport (La.): TIMES (M & S); JOURNAL (E).....	192,465		251,355
South Bend-Mishawaka (Ind.): TRIBUNE.....	86,878	51,145	107,973
Spokane (Wash.): SPOKESMAN-REVIEW.....		110,939	115,152
Syracuse (N. Y.): HERALD-JOURNAL (E); HERALD-AMERICAN (S).....	90,356		143,042
POST-STANDARD.....		132,387	201,615
Tampa (Fla.): TRIBUNE.....	103,694		106,410
Toledo: BLADE.....	137,045		155,262
Tulsa (Okla.): WORLD (M & S); TRIBUNE (E).....		186,863	179,896
Washington (D. C.): POST & TIMES HERALD.....	95,935	75,926	154,341
EVENING STAR: SUNDAY STAR.....	390,365 ²		432,695
NEWS.....		266,414 ²	298,067
Wichita (Kans.): EAGLE.....		173,616 ²	
BEACON.....	102,611	74,641	121,584
Winston-Salem (N. C.): JOURNAL (M); TWIN CITY SENTINEL (E); JOURNAL-SENTINEL (S).....		97,583	126,745
Youngstown (Ohio): VINDICATOR & TELEGRAM.....	63,510	38,878	74,735
		101,687	146,800

Leading Magazines: United States and Canada

Source: Audit Bureau of Circulations: Publishers' Statements for 6-month period ending Dec. 31, 1957.

Magazine	Circulation ¹	Magazine	Circulation ¹
American Girl (M)	641,440	Motion Picture (M)	848,139
American Home (M)	3,259,925	Motor Trend (M)	454,708
Argosy (M)	1,459,637	National Geographic Magazine (M)	2,178,040
Better Homes & Gardens (M)	4,379,237	Nation's Business (M)	779,483
Boys' Life (M)	1,648,019	Newsweek (W)	1,154,011
Canadian Home Journal (M) ²	501,837	Outdoor Life (M)	935,049
Charm (M)	663,570	Parents' Magazine (M)	1,747,385
Confidential (BM)	1,976,892	Photoplay (M)	1,357,289
Coronet (M)	2,975,434	Playboy (M)	760,071
Cosmopolitan (M)	996,613	Popular Mechanics (M)	1,330,738
Esquire (M)	829,817	Popular Science Monthly (M)	1,190,779
Everywoman's (M)	1,688,022	Reader's Digest (M)	11,390,918
Family Circle (M)	3,942,905	Reader's Digest (Canadian English Edition) (M) ²	809,050
Field & Stream (M)	921,341	Redbook Magazine (M)	2,591,676
Glamour (M)	681,364	Saturday Evening Post (W)	5,449,193
Good Housekeeping (M)	4,233,252	Science & Mechanics (BM)	578,092
Grit (W)	869,930	Secrets (M)	659,503
Holiday (M)	913,867	Seventeen (M)	1,048,262
Hot Rod Magazine (M)	455,417	Sport (M)	484,456
House & Garden (M)	574,021	Sports Afield (M)	997,039
House Beautiful (M)	721,225	Sports Illustrated (W)	795,248
Household (M)	2,646,808	Stag (M)	487,127
Jet (W)	453,647	Sunset (M)	610,931
Ladies' Home Journal (M)	5,614,599	Time (W)	2,172,230
Liberty (M) ²	546,181	True (M)	2,278,230
Life (W)	5,961,154	True Confessions (M)	1,371,924
Living for Young Homemakers (M) ..	630,481	True Romance (M)	701,817
Look (BW)	5,378,464	True Story (M)	2,625,967
Maclean's Magazine (BW) ²	556,952	TV Guide (all editions) (W)	5,470,177
Mademoiselle (M)	522,212	TV Radio Mirror (M)	703,855
McCall's Magazine (M)	5,303,239	U. S. News & World Report (W) ..	975,483
Mechanix Illustrated (M)	1,094,729	Woman's Day (M)	3,111,942
Modern Romances (M) ³	1,098,435	Workbasket (M)	1,379,393
Modern Screen (M) ³	1,219,216		

¹ Average total paid circulation for the 6-month period indicated above. This table lists weekly, biweekly, monthly and bimonthly magazines of more than 450,000 circulation, but excludes official organs of associations and religious or scholastic magazines. ² Canadian publication. ³ Except January. NOTE: W—weekly; BW—biweekly; M—monthly; BM—bimonthly.

Radio and Television Stations and Networks

Source: National Association of Broadcasters.

Major networks	Standard broadcast stations (May 1, 1958)		TV Stations (May 1, 1958)	
	Owned and operated	Affiliated	Owned and operated	
ABC—American Broadcasting Company	4	284	5	
CBS—Columbia Broadcasting System	6	207	6	
MBS—Mutual Broadcasting System .....	..	435	..	
NBC—National Broadcasting Company	7	207	7	

Number of stations* (June 1, 1958)	Operating	Permits for construction	Total
Standard broadcast	3,248	92	3,340
FM (Frequency modulation)	541	87	628
Television	555	108	663

* Including territories and possessions.

Patents

Source: Patent Office.

A patent, in the most general sense, is a document issued by a government, conferring some special right or privilege. The term is now restricted mainly to patents for inventions; occasionally, land patents.

The grant of a patent for an invention gives the inventor the privilege, for a limited period of time, of excluding others from practicing a certain art or from making, using, or selling a certain article. However, it does not give him the right to make, use, or sell his own invention if it is an improvement on some unexpired patent whose claims are infringed thereby.

In the U. S., the law provides that a patent may be granted, for a term of 17 years, to any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, as well as any new and useful improvements thereof. A patent may also be granted to a person who has invented or discovered and asexually reproduced a new and distinct variety of plant (other than a tuber-propagated one) or has invented a new, original and ornamental design for an article of manufacture.

A patent is granted only upon a regularly

filed application, complete in all respects; upon payment of the fees; and upon determination that the disclosure is complete and that the invention is new and useful. The disclosure must be of such nature as to enable others to reproduce the invention.

A complete application, which must be addressed to the Commissioner of Patents, Washington, D. C., consists of a petition, specification and claims, oath, drawing (whenever the nature of the case admits of it) and a filing fee of \$30 for cases having 20 claims or less. An additional fee of \$1 per claim is required for cases having more than 20 claims. The filing fee is not returned to the applicant if the patent is refused. If the patent is allowed, another fee of \$30 (and \$1 each for claims allowed in excess of 20) is required before the patent is issued. The fees for design patents vary.

Applications are considered in the order in which they are received. Patents are not granted for printed matter, for methods of doing business or for devices for which claims contrary to natural laws are made. Applications for a perpetual-motion machine have been made from time to time, but until a working model is presented that actually fulfills the claim, no patent will be issued.

Trademarks

Source: Patent Office.

A trademark may be defined as a word, letter, device or symbol, as well as some combination of these, which is used in connection with merchandise and which points distinctly to the origin or ownership of it.

Certificates of registration of trademarks are issued under the seal of the Patent Office and may be registered by the owner if he is engaged in interstate or foreign commerce, since any Federal jurisdiction over trademarks arises under the commerce clause of the Constitution. Trademarks may be registered by foreign owners who comply with our law, as well as by citizens of foreign countries with which the U. S. has treaties relating to trademarks. American citizens may register trademarks in foreign

countries by complying with the laws of those countries. The right to registration and protection of trademarks in many foreign countries is guaranteed by treaties.

General jurisdiction in trademark cases is given to the Federal courts. Decisions of examiners on applications or oppositions are subject to appeal to the Trademark Trial and Appeal Board and from it to the U. S. Court of Customs and Patent Appeals. Before adopting a trademark, a person should make a search of prior marks in order to avoid infringing unwittingly upon them.

The duration of a trademark registration is 20 years, but it may be renewed indefinitely for 20-year periods, provided the trademark is still in use at the time of expiration.

Television Statistics

Source: ELECTRONIC TECHNICIAN Magazine.

Year	TV sets mfd.	Retail value	Picture tubes mfd.	Retail value	TV stations	Homes with TV*	TV sets in use in U. S.
1946.....	10,000	\$ 5,000,000	20,000	\$ 1,000,000	5	8,000	8,000
1947.....	250,000	100,000,000	300,000	15,000,000	20	250,000	250,000
1948.....	1,000,000	350,000,000	1,500,000	75,000,000	44	1,000,000	1,000,000
1949.....	3,000,000	950,000,000	3,500,000	210,000,000	100	4,000,000	4,000,000
1950.....	7,500,000	2,700,000,000	8,000,000	400,000,000	107	10,400,000	10,500,000
1951.....	5,600,000	2,100,000,000	6,000,000	300,000,000	108	15,500,000	15,750,000
1953.....	7,300,000	1,675,000,000	9,000,000	360,000,000	350	26,000,000	28,000,000
1955.....	7,800,000	1,350,000,000	11,100,000	400,000,000	460	34,000,000	39,400,000
1956.....	7,300,000	1,241,000,000	11,400,000	370,000,000	495	37,000,000	43,900,000
1957.....	6,600,000	1,050,000,000	13,100,000	410,000,000	512	39,500,000	47,200,000

* Includes dwellings such as apartment hotels.

Copyrights

Source: Copyright Office.

A copyright is a statutory right obtained by authors, musicians and artists or their assigns, upon compliance with the provisions of the copyright law, to prevent the reproduction of their works without their consent. The U. S. Constitution (Article I, Section 8) empowers Congress "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The copyright owner possesses the exclusive right to print, reprint, publish, copy and vend the copyrighted work. Among some of the other rights possessed by the copyright owner are the exclusive rights to translate and dramatize literary works, to control public performance of dramas, and, in the case of nondramatic literary works and musical compositions, to control public performance for profit. Special provisions in regard to mechanical reproductions of musical compositions are included. Copyright protection extends to books; pamphlets; periodicals and contributions to periodicals; lectures, sermons, and monologues; dramas and dramatico-musical compositions; musical compositions; maps; works of art or models and designs for works of art; reproductions of a work of art; drawings or plastic works of scientific or technical character; photographs; prints, and pictorial illustrations; commercial prints and labels; and motion pictures.

Copyright term endures 28 years from date of registration in the Copyright Office for unpublished material and from the date of publication for published works. The copyright may be renewed for an additional period of 28 years, provided application for such renewal is made within one year prior to the date of expiration of the original term. The copyright of a book or similar publication is secured by publication of such work after printing on the title page, or the page immediately following, the required copyright notice. This notice consists of the word *Copyright*, the abbreviation *Copr.* or the symbol ©, the name of the copyright owner and the year date of publication. It is important to bear in mind that copyright comes into being at the time of first publication if this required notice appears on the work. If publication occurs without this notice, the work falls into the public domain, and the

Copyright Office cannot register the claim. In short, the Copyright Office does not grant copyrights; the obtaining of such protection depends on whether or not the claimant follows the statutory formalities at the time of publication. In view of the fact that those formalities vary with the different classes of works subject to copyright, persons interested in securing copyright should obtain circular No. 35 from the Register of Copyrights, Library of Congress, Washington 25, D. C.

The law requires that, promptly after the work has been published, two copies thereof (foreign works, one copy) must be promptly deposited in the Copyright Office. These copies should be accompanied by the proper application form and the statutory fee of \$4. If the work is a commercial print or label used with the sale or advertisement of an article of merchandise, the fee is \$6.

Effective June 3, 1949, the term of ad interim protection for books and periodicals in the English language first published abroad was extended to five years. Such works may be imported into the U. S. up to a total of 1,500 copies after ad interim registration has been obtained. The above amendment to the law also affords to the foreign author or publishers an option of obtaining registration without payment of the usual statutory fee if an extra copy of the work, accompanied by a catalogue card, is submitted to the Copyright Office within six months of first publication abroad.

The Act of Aug. 31, 1954, modified a number of existing formalities, primarily with regard to certain foreign works, and was designed to implement the Universal Copyright Convention, which took effect on Sept. 16, 1955. One principal modification is that U. S. authors and publishers may use the symbol © instead of the word *Copyright* or the abbreviation *Copr.* The symbol must be accompanied by the name of the copyright owner and the year date of publication. The use of this form may obtain automatic copyright protection in member countries of the Universal Copyright Convention.

Application forms, etc., may be obtained free from the Copyright Office. Bulletin 14, the U. S. copyright law, can be purchased from the Register of Copyrights for 25¢.

Radio and Audio Statistics for U. S.

Source: ELECTRONIC TECHNICIAN Magazine.

Radio†		Audio	
Radios: Homes with*	52,800,000	Phonographs sold, 1956.....	4,700,000
Secondary sets in home.....	47,500,000	Phonographs in U. S.....	35,200,000†
Sets in business.....	12,900,000	Tape recorders sold, 1956.....	490,000
Automobile radios.....	40,800,000	Tape recorders in U. S.....	2,550,000†
Total radios.....	154,000,000	Home hi-fi servicing.....	\$82,800,000
Amateur stations licensed.....	125,000	Hi-fi audio \$ volume‡.....	\$190,000,000

* Includes dwellings such as apartment hotels. † As of Jan. 1, 1958. ‡ 1957 sales.

Motor Vehicle Laws as of 1958

Source: American Automobile Association.

State	Speed limit ¹	Date new license plates can be used	Driving license Required	Minimum age	Gasoline tax	Percent sales tax	Period of stay ²	Safety responsibility law	Certificate of title required
Alabama.....	60 A FML	Oct. 1	yes	16	\$.07	1	Reciprocal	yes	no
Alaska.....	50 A	Dec. 1	yes	16	.05	...	90 days	no	...
Arizona.....	AGC pf	Dec. 1	yes	18	.05	2	(⁴)	yes	yes
Arkansas.....	60 pf AGH	Jan. 1	yes	14	.065	3	30 days	yes	yes
California.....	55 pf AE	Jan. 1	yes	16	.06	3	(¹⁴)	yes	yes
Colorado.....	60 pf A	Jan. 1	yes	16	.06	2	Reciprocal	yes	yes
Connecticut.....	AF pf	Mar. 1	yes	16	.06	3 ⁵	6 months ¹⁸	yes	no
Delaware.....	50 B FML	(⁷)	yes	16	.05	...	90 days	yes	yes
D. C.....	25 G pf	Mar. 1	yes	16	.06	2 ²¹	Reciprocal	yes	yes
Florida.....	65 E FML	Jan. 1	yes	16	.07	1	Reciprocal	yes	yes
Georgia.....	60 C FML	Jan. 1	yes	16	.065	3	30 days	yes	no
Idaho.....	60 pf AE	Dec. 1	yes	16	.06	...	Reciprocal	yes	yes
Illinois.....	65 FML	Dec. 1	yes	16	.05	2 ^{1/2}	Reciprocal	yes	yes
Indiana.....	65 pf AG ¹³	Jan. 2	yes	16	.06	...	Reciprocal	yes	yes
Iowa.....	AH	Dec. 1	yes	16	.06	2	Reciprocal	yes	yes
Kansas.....	70 H FML	Jan. 1	yes	16	.05	2	(¹⁴)	yes	yes
Kentucky.....	60 C FML	Dec. 29	yes	16	.07	3	Reciprocal	yes	(⁹)
Louisiana.....	60 pf AH	Dec. 1	yes	15	.07	2	Reciprocal	yes	yes
Maine.....	60 EG FML	Dec. 25	yes	15	.07	3	Reciprocal	yes	no
Maryland.....	50 pf A	Mar. 1	yes	16	.06	2	90 days	yes ¹⁴	yes
Massachusetts.....	40 pf A	Jan. 1	yes	16	.055	(²¹)	Reciprocal	(⁸)	no
Michigan.....	65 E FML	(¹⁹)	yes	16	.06	3	90 days	yes	yes
Minnesota.....	60 pf AC	Nov. 15	yes	15	.05	...	Reciprocal	yes	yes
Mississippi.....	60 FML ²⁰	Nov. 1	yes	17	.07	2	30 days	yes	no
Missouri.....	65 H FML	On issue	yes	16	.03	2	Reciprocal	yes	yes
Montana.....	65 pf E	Jan. 2	yes	15	.06	...	30 days ^{3,11}	yes	yes
Nebraska.....	65 E FML	Jan. 1	yes	15 ^{1/2}	.07	...	30 days	yes	yes
Nevada.....	A	June 1	yes	16	.06	2	(¹⁹)	yes	yes
New Hampshire.....	50 AGF	Mar. 1	yes	16	.05	...	Reciprocal	yes	no
New Jersey.....	50 pf AF	On issue	yes	17	.04	...	Reciprocal	yes ¹⁴	yes
New Mexico.....	70 H FML	Dec. 15	yes	16	.06	1 ²¹	(¹⁹)	yes	yes
New York.....	50 CG FML	Jan. 1	yes	16	.04	...	Reciprocal	(¹¹)	no
North Carolina.....	55 E FML	Jan. 1	yes	16	.07	1 ¹²	Reciprocal	(⁹)	yes
North Dakota.....	65 E FML	Nov. 1	yes	16	.06	2	Reciprocal	yes ¹⁴	yes
Ohio.....	60 pf AC	Mar. 1	yes	16	.05	3	Reciprocal	yes	yes
Oklahoma.....	65 E FML	Dec. 11	yes	16	.0658	2 ²¹	30 days	yes	yes
Oregon.....	55 pf AE	On issue	yes	16	.06	...	(¹⁹)	yes	yes
Pennsylvania.....	50 CG FML	Mar. 15	yes	18	.05	3	Reciprocal	yes	yes
Rhode Island.....	50 pf AD	Mar. 1	yes	16	.04	3	Reciprocal	yes	no
South Carolina.....	55 pf AE	Sept. 16	yes	14	.07	3	90 days	yes	no
South Dakota.....	60 pf AC	Jan. 1	yes	15	.06	2 ³	60 days	yes	yes
Tennessee.....	65 E FML	Mar. 1	yes	16	.07	3	30 days	yes	yes
Texas.....	60 pf AE	Feb. 1	yes	16	.05	1.1	Reciprocal	yes	yes
Utah.....	60 pf AC	Dec. 15	yes	16	.06	2	Reciprocal	yes	yes
Vermont.....	50 C FML ¹⁶	Feb. 1	yes	16	.065	...	Reciprocal	yes	no
Virginia.....	55 E FML ¹⁷	Mar. 15	yes	15	.06	...	60 days	yes	yes
Washington.....	60 GH FML	Jan. 1	yes	16	.065	3 ^{1/2}	Reciprocal	yes	yes
West Virginia.....	55 AE FML	June 1	yes	16	.06	2	Rec. 3 mo.	yes	yes
Wisconsin.....	65 AE FML	On issue	yes	16	.06	...	Reciprocal	yes	yes
Wyoming.....	60 pf AH	Dec. 1	yes	15	.05	2	90 days	yes	yes

¹ A—reasonable and proper; B—55 mph on 4-lane highways; C—50 mph at night; D—45 mph at night; E—55 mph at night; F—parkways to 55 mph where marked; G—unless otherwise marked; H—60 mph at night; pf—prima facie limit; FML—fixed maximum limit. ² Applies to nonresidents. The term "reciprocal" means that the state will extend to a nonresident the identical privileges granted by his home state to nonresident motorists. In some states, visitors must register within a specified time. In most states, persons who intend to reside permanently must buy new plates and secure new driving license at once, or within a limited time. Acquisition of employment or placing children in public school is often considered intention to reside permanently. ³ Registry tax on first registration in state. ⁴ Visitor's permit required after 10 days. ⁵ Sales or use tax on new cars, first registration of used cars. ⁶ Bill of sale must be filed. ⁷ Three months before current registration expires. ⁸ State has compulsory insurance. ⁹ Visitors must register immediately. ¹⁰ Until home state license plates expire. ¹¹ Extension granted. ¹² \$80 maximum. ¹³ For automobiles; busses, 55 mph; large trucks, 45 mph. ¹⁴ State has "Unsatisfactory Judgment Fund" law. ¹⁵ Non-resident car must bear valid registration plates of place of residence of owner. ¹⁶ Unless otherwise posted, trucks and busses, 45 mph. ¹⁷ Passenger vehicles; trucks, 45 mph. ¹⁸ Not to exceed 6 months when employed in state. ¹⁹ At discretion of Secretary of State. ²⁰ 30 mph minimum limit on state highways. ²¹ Excise tax.

Road Mileages Between U. S. Cities

Source: American Automobile Association.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala. ....	.....	1,223	1,130	663	751	659	1,379
Boston, Mass.	1,223	.....	463	980	651	1,728	2,025
Buffalo, N. Y.	1,130	463	.....	524	188	1,427	1,562
Chicago, Ill.	663	980	524	.....	349	1,006	1,038
Cleveland, Ohio	751	651	188	349	.....	1,139	1,351
Dallas, Tex.	659	1,728	1,427	1,006	1,139	.....	800
Denver, Colo.	1,379	2,025	1,562	1,038	1,351	800	.....
Detroit, Mich.	759	735	252	272	167	1,278	1,323
El Paso, Tex.	1,286	2,527	1,938	1,654	1,750	627	725
Houston, Tex.	742	1,965	1,549	1,173	1,361	243	1,043
Indianapolis, Ind.	508	935	488	186	300	928	1,051
Kansas City, Mo.	714	1,429	982	503	794	527	644
Los Angeles, Calif.	2,121	3,162	2,699	2,175	2,457	1,486	1,202
Louisville, Ky.	394	971	550	300	362	892	1,168
Memphis, Tenn.	248	1,360	958	541	765	474	1,131
Miami, Fla.	803	1,540	1,434	1,384	1,346	1,346	2,182
Minneapolis, Minn.	1,088	1,405	962	425	774	991	916
New Orleans, La.	357	1,580	1,392	943	1,108	490	1,280
New York, N. Y.	851	208	384	850	501	1,646	1,833
Omaha, Nebr.	926	1,472	1,010	486	835	699	552
Philadelphia, Pa.	759	301	393	756	426	1,576	1,763
Phoenix, Ariz.	1,699	2,834	2,245	1,816	2,057	1,040	826
Pittsburgh, Pa.	812	576	223	463	131	1,278	1,465
St. Louis, Mo.	548	1,196	729	300	541	706	901
Salt Lake City, Utah	1,890	2,424	1,964	1,440	1,789	1,270	511
San Francisco, Calif.	2,443	3,186	2,723	2,199	2,548	1,807	1,270
Seattle, Wash.	2,779	3,098	2,600	2,076	2,608	2,153	1,403
Washington, D. C.	769	435	407	698	368	1,399	1,614

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	759	1,286	742	508	714	2,121	394
Boston, Mass.	735	2,527	1,965	935	1,429	3,162	971
Buffalo, N. Y.	252	1,938	1,549	488	982	2,699	550
Chicago, Ill.	272	1,654	1,173	186	503	2,175	300
Cleveland, Ohio	167	1,750	1,361	300	794	2,457	362
Dallas, Tex.	1,278	627	243	928	527	1,486	892
Denver, Colo.	1,323	725	1,043	1,051	644	1,202	1,168
Detroit, Mich. ....	.....	1,722	1,307	272	766	2,447	370
El Paso, Tex.	1,722	.....	750	1,450	1,039	816	1,416
Houston, Tex.	1,307	750	.....	1,035	770	1,566	999
Indianapolis, Ind.	272	1,450	1,035	.....	498	2,196	114
Kansas City, Mo.	766	1,039	770	498	.....	1,728	524
Los Angeles, Calif.	2,447	816	1,566	2,196	1,728	.....	2,183
Louisville, Ky.	370	1,416	999	114	524	2,183	.....
Memphis, Tenn.	716	1,091	591	444	466	1,874	381
Miami, Fla.	1,407	1,998	1,288	1,274	1,526	2,832	1,126
Minneapolis, Minn.	697	1,480	1,234	611	464	2,018	725
New Orleans, La.	1,116	1,135	385	844	868	1,976	751
New York, N. Y.	636	2,161	1,593	727	1,221	3,025	773
Omaha, Nebr.	758	1,045	942	591	212	1,689	736
Philadelphia, Pa.	580	2,091	1,501	657	1,151	2,919	693
Phoenix, Ariz.	2,029	413	1,163	1,757	1,346	403	1,783
Pittsburgh, Pa.	287	1,793	1,394	359	853	2,621	395
St. Louis, Mo.	515	1,209	821	241	257	1,916	267
Salt Lake City, Utah	1,712	1,137	1,537	1,547	1,155	735	1,679
San Francisco, Calif.	2,471	1,221	2,019	2,306	1,914	415	2,438
Seattle, Wash.	2,531	2,078	2,449	2,262	2,047	1,177	2,547
Washington, D. C.	522	2,026	1,511	563	1,051	2,799	599

Road Mileages Between U. S. Cities

Source: American Automobile Association.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	248	803	1,105	357	851	926	759
Boston, Mass.	1,360	1,540	1,421	1,580	208	1,472	301
Buffalo, N. Y.	958	1,434	958	1,392	384	1,010	393
Chicago, Ill.	541	1,384	434	943	850	486	756
Cleveland, Ohio	765	1,346	783	1,108	501	835	426
Dallas, Tex.	474	1,346	991	490	1,646	699	1,576
Denver, Colo.	1,131	2,182	916	1,280	1,833	552	1,763
Detroit, Mich.	716	1,407	706	1,116	636	758	580
El Paso, Tex.	1,091	1,998	1,480	1,135	2,161	1,045	2,091
Houston, Tex.	591	1,288	1,234	385	1,593	942	1,501
Indianapolis, Ind.	444	1,274	620	844	727	591	657
Kansas City, Mo.	466	1,526	464	868	1,221	212	1,151
Los Angeles, Calif.	1,874	2,832	2,018	1,976	3,025	1,689	2,919
Louisville, Ky.	381	1,126	734	751	773	736	693
Memphis, Tenn.		1,022	863	400	1,152	678	1,060
Miami, Fla.	1,022		1,818	899	1,332	1,738	1,224
Minneapolis, Minn.	863	1,818		1,275	1,284	364	1,190
New Orleans, La.	400	899	1,275		1,208	1,080	1,116
New York, N. Y.	1,152	1,332	1,284	1,208		1,300	93
Omaha, Nebr.	678	1,738	364	1,080	1,300		1,230
Philadelphia, Pa.	1,060	1,224	1,190	1,116	93	1,230	
Phoenix, Ariz.	1,474	2,411	1,742	1,548	2,474	1,378	2,534
Pittsburgh, Pa.	804	1,276	897	1,169	368	932	298
St. Louis, Mo.	301	1,269	562	701	968	469	898
Salt Lake City, Utah	1,619	2,607	1,283	1,801	2,290	954	2,184
San Francisco, Calif.	2,195	3,270	2,141	2,297	3,049	1,713	2,943
Seattle, Wash.	2,532	3,582	1,642	2,683	2,926	1,773	2,832
Washington, D. C.	925	1,111	1,132	1,150	227	1,167	135

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,699	812	548	1,890	2,443	2,779	769
Boston, Mass.	2,834	576	1,196	2,424	3,186	3,098	435
Buffalo, N. Y.	2,245	223	729	1,964	2,723	2,600	407
Chicago, Ill.	1,816	463	300	1,440	2,199	2,076	698
Cleveland, Ohio	2,057	131	541	1,789	2,548	2,608	368
Dallas, Tex.	1,040	1,278	706	1,270	1,807	2,153	1,399
Denver, Colo.	826	1,465	901	511	1,270	1,403	1,614
Detroit, Mich.	2,029	287	515	1,712	2,471	2,531	522
El Paso, Tex.	413	1,793	1,209	1,137	1,221	2,078	2,026
Houston, Tex.	1,163	1,394	821	1,537	2,019	2,449	1,511
Indianapolis, Ind.	1,757	359	241	1,547	2,306	2,262	563
Kansas City, Mo.	1,346	853	257	1,155	1,914	2,047	1,051
Los Angeles, Calif.	403	2,621	1,916	735	415	1,177	2,799
Louisville, Ky.	1,783	395	267	1,679	2,438	2,547	599
Memphis, Tenn.	1,474	804	301	1,619	2,195	2,532	925
Miami, Fla.	2,411	1,276	1,269	2,607	3,270	3,582	1,111
Minneapolis, Minn.	1,742	897	562	1,283	2,141	1,642	1,132
New Orleans, La.	1,548	1,169	701	1,801	2,297	2,683	1,150
New York, N. Y.	2,474	368	968	2,290	3,049	2,926	227
Omaha, Nebr.	1,378	932	469	954	1,713	1,773	1,167
Philadelphia, Pa.	2,534	298	898	2,184	2,943	2,832	135
Phoenix, Ariz.		2,116	1,516	763	827	1,531	2,399
Pittsburgh, Pa.	2,116		600	1,886	2,645	2,438	235
St. Louis, Mo.	1,516	600		1,412	2,171	2,259	804
Salt Lake City, Utah	763	1,886	1,412		759	889	1,778
San Francisco, Calif.	827	2,645	2,171	759		874	2,885
Seattle, Wash.	1,531	2,438	2,259	889	874		2,673
Washington, D. C.	2,399	235	804	1,778	2,885	2,673	

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Birmingham	Boston	Buffalo	Chicago	Cleveland	Dallas	Denver
Birmingham, Ala. ....	.....	1,052	776	578	618	581	1,095
Boston, Mass.	1,052	.....	400	851	551	1,551	1,769
Buffalo, N. Y.	776	400	.....	454	173	1,198	1,370
Chicago, Ill.	578	851	454	.....	308	803	920
Cleveland, Ohio	618	551	173	308	.....	1,025	1,227
Dallas, Tex.	581	1,551	1,198	803	1,025	.....	663
Denver, Colo.	1,095	1,769	1,370	920	1,227	663	.....
Detroit, Mich.	641	613	216	238	90	999	1,156
El Paso, Tex.	1,152	2,072	1,692	1,252	1,525	572	557
Houston, Tex.	567	1,605	1,286	940	1,114	225	879
Indianapolis, Ind.	433	807	435	165	263	763	1,000
Kansas City, Mo.	579	1,251	861	414	700	451	558
Los Angeles, Calif.	1,802	2,596	2,198	1,745	2,049	1,240	831
Louisville, Ky.	331	826	483	269	311	726	1,038
Memphis, Tenn.	217	1,137	803	482	630	420	879
Miami, Fla.	665	1,255	1,181	1,188	1,087	1,111	1,726
Minneapolis, Minn.	862	1,123	731	355	630	862	700
New Orleans, La.	312	1,359	1,086	833	924	443	1,082
New York, N. Y.	864	188	292	713	405	1,374	1,631
Omaha, Nebr.	732	1,282	883	432	739	586	488
Philadelphia, Pa.	783	271	279	666	360	1,299	1,579
Phoenix, Ariz.	1,456	2,300	1,906	1,453	1,749	887	586
Pittsburgh, Pa.	608	483	178	410	115	1,070	1,320
St. Louis, Mo.	400	1,038	662	262	492	547	796
Salt Lake City, Utah	1,466	2,099	1,699	1,260	1,568	999	371
San Francisco, Calif.	2,013	2,699	2,300	1,858	2,166	1,483	949
Seattle, Wash.	2,082	2,493	2,117	1,737	2,026	1,681	1,021
Washington, D. C.	661	393	292	597	306	1,185	1,494

Cities	Detroit	El Paso	Houston	Indianapolis	Kansas City	Los Angeles	Louisville
Birmingham, Ala.	641	1,152	567	433	579	1,802	331
Boston, Mass.	613	2,072	1,605	807	1,251	2,596	826
Buffalo, N. Y.	216	1,692	1,286	435	861	2,198	483
Chicago, Ill.	238	1,252	940	165	414	1,745	269
Cleveland, Ohio	90	1,525	1,114	263	700	2,049	311
Dallas, Tex.	999	572	225	763	451	1,240	726
Denver, Colo.	1,156	557	879	1,000	558	831	1,038
Detroit, Mich. ....	.....	1,479	1,105	240	645	1,983	316
El Paso, Tex.	1,479	.....	676	1,264	839	701	1,254
Houston, Tex.	1,105	676	.....	865	644	1,374	803
Indianapolis, Ind.	240	1,264	865	.....	453	1,809	107
Kansas City, Mo.	645	839	644	453	.....	1,356	480
Los Angeles, Calif.	1,983	701	1,374	1,809	1,356	.....	1,829
Louisville, Ky.	316	1,254	803	107	480	1,829	.....
Memphis, Tenn.	623	976	484	384	369	1,603	320
Miami, Fla.	1,152	1,643	968	1,024	1,241	2,339	919
Minneapolis, Minn.	543	1,157	1,056	511	413	1,524	605
New Orleans, La.	939	983	318	712	680	1,673	623
New York, N. Y.	482	1,905	1,420	646	1,097	2,451	652
Omaha, Nebr.	669	878	794	525	166	1,315	580
Philadelphia, Pa.	443	1,836	1,341	585	1,038	2,394	582
Phoenix, Ariz.	1,690	346	1,017	1,499	1,049	357	1,508
Pittsburgh, Pa.	205	1,590	1,137	330	781	2,136	344
St. Louis, Mo.	455	1,034	679	231	238	1,589	242
Salt Lake City, Utah	1,492	689	1,200	1,356	925	579	1,402
San Francisco, Calif.	2,091	995	1,645	1,949	1,506	347	1,986
Seattle, Wash.	1,938	1,376	1,891	1,872	1,506	959	1,943
Washington, D. C.	396	1,728	1,220	494	945	2,300	476

Air Distances Between U. S. Cities

Source: U. S. Coast and Geodetic Survey.

Cities	Memphis	Miami	Minneapolis	New Orleans	New York	Omaha	Philadelphia
Birmingham, Ala.	217	665	862	312	864	732	783
Boston, Mass.	1,137	1,255	1,123	1,359	188	1,282	271
Buffalo, N. Y.	803	1,181	731	1,086	292	883	279
Chicago, Ill.	482	1,188	355	833	713	432	666
Cleveland, Ohio	630	1,087	630	924	405	739	360
Dallas, Tex.	420	1,111	862	443	1,374	586	1,299
Denver, Colo.	879	1,726	700	1,082	1,631	488	1,579
Detroit, Mich.	623	1,152	543	939	482	669	443
El Paso, Tex.	976	1,643	1,157	983	1,905	878	1,836
Houston, Tex.	484	968	1,056	318	1,420	794	1,341
Indianapolis, Ind.	384	1,024	511	712	646	525	585
Kansas City, Mo.	369	1,241	413	680	1,097	166	1,038
Los Angeles, Calif.	1,603	2,339	1,524	1,673	2,451	1,315	2,394
Louisville, Ky.	320	919	605	623	652	580	582
Memphis, Tenn. ....	....	872	699	358	957	529	881
Miami, Fla.	872	....	1,511	669	1,092	1,397	1,019
Minneapolis, Minn.	699	1,511	....	1,051	1,018	290	985
New Orleans, La.	358	669	1,051	....	1,171	847	1,089
New York, N. Y.	957	1,092	1,018	1,171	....	1,144	83
Omaha, Nebr.	529	1,397	290	847	1,144	....	1,094
Philadelphia, Pa.	881	1,019	985	1,089	83	1,094	....
Phoenix, Ariz.	1,263	1,982	1,280	1,316	2,145	1,036	2,083
Pittsburgh, Pa.	660	1,010	743	919	317	836	259
St. Louis, Mo.	240	1,061	466	598	875	354	811
Salt Lake City, Utah	1,250	2,089	987	1,434	1,972	833	1,925
San Francisco, Calif.	1,802	2,594	1,584	1,926	2,571	1,429	2,523
Seattle, Wash.	1,867	2,734	1,395	2,101	2,408	1,369	2,380
Washington, D. C.	765	923	934	966	205	1,014	123

Cities	Phoenix	Pittsburgh	St. Louis	Salt Lake City	San Francisco	Seattle	Washington
Birmingham, Ala.	1,456	608	400	1,466	2,013	2,082	661
Boston, Mass.	2,300	483	1,038	2,099	2,699	2,493	393
Buffalo, N. Y.	1,906	178	662	1,699	2,300	2,117	292
Chicago, Ill.	1,453	410	262	1,260	1,858	1,737	597
Cleveland, Ohio	1,749	115	492	1,568	2,166	2,026	306
Dallas, Tex.	887	1,070	547	999	1,483	1,681	1,185
Denver, Colo.	586	1,320	796	371	949	1,021	1,494
Detroit, Mich.	1,690	205	455	1,492	2,091	1,938	396
El Paso, Tex.	346	1,590	1,034	689	995	1,376	1,728
Houston, Tex.	1,017	1,137	679	1,200	1,645	1,891	1,220
Indianapolis, Ind.	1,499	330	231	1,356	1,949	1,872	494
Kansas City, Mo.	1,049	781	238	925	1,506	1,506	945
Los Angeles, Calif.	357	2,136	1,589	579	347	959	2,300
Louisville, Ky.	1,508	344	242	1,402	1,986	1,943	476
Memphis, Tenn.	1,263	660	240	1,250	1,802	1,867	765
Miami, Fla.	1,982	1,010	1,061	2,089	2,594	2,734	923
Minneapolis, Minn.	1,280	743	466	987	1,584	1,395	934
New Orleans, La.	1,316	919	598	1,434	1,926	2,101	966
New York, N. Y.	2,145	317	875	1,972	2,571	2,408	205
Omaha, Nebr.	1,036	836	354	833	1,429	1,369	1,014
Philadelphia, Pa.	2,083	259	811	1,925	2,523	2,380	123
Phoenix, Ariz. ....	....	1,828	1,272	504	653	1,114	1,983
Pittsburgh, Pa.	1,828	....	559	1,668	2,264	2,138	192
St. Louis, Mo.	1,272	559	....	1,162	1,744	1,724	712
Salt Lake City, Utah	504	1,668	1,162	....	600	701	1,848
San Francisco, Calif.	653	2,264	1,744	600	....	678	2,442
Seattle, Wash.	1,114	2,138	1,724	701	678	....	2,329
Washington, D. C.	1,983	192	712	1,848	2,442	2,329	....

Air Distances Between World Cities

Source: *Encyclopaedia Britannica*.

Cities	Berlin	Buenos Aires	Cairo	Calcutta	Capetown	Caracas	Chicago
Berlin, Germany	.....	7,402	1,795	4,368	5,981	5,247	4,405
Buenos Aires, Argentina	7,402	.....	7,345	10,265	4,269	3,168	5,598
Cairo, Egypt	1,795	7,345	.....	3,539	4,500	6,338	6,129
Calcutta, India	4,368	10,265	3,539	.....	6,024	9,605	7,980
Capetown, South Africa	5,981	4,269	4,500	6,024	.....	6,365	8,494
Caracas, Venezuela	5,247	3,168	6,338	9,605	6,365	.....	2,501
Chicago, Ill., U. S.	4,405	5,598	6,129	7,980	8,494	2,501	.....
Hong Kong (Victoria)	5,440	11,472	5,061	1,648	7,375	10,167	7,793
Honolulu, Hawaii	7,309	7,561	8,838	7,047	11,534	6,013	4,250
Istanbul, Turkey	1,078	7,611	768	3,638	5,154	6,048	5,477
Lisbon, Portugal	1,436	5,956	2,363	5,638	5,325	4,041	3,990
London, England	579	6,916	2,181	4,947	6,012	4,660	3,950
Los Angeles, Calif., U. S.	5,724	6,170	7,520	8,090	9,992	3,632	1,745
Manila, Philippines	6,132	11,051	5,704	2,203	7,486	10,620	8,143
Mexico City, Mexico	6,047	4,592	7,688	9,492	8,517	2,232	1,691
Montreal, Canada	3,729	5,615	5,414	7,607	7,931	2,449	744
Moscow, U.S.S.R.	1,004	8,376	1,803	3,321	6,300	6,173	4,974
New York, N. Y., U. S.	3,965	5,297	5,602	7,918	7,764	2,132	713
Paris, France	545	6,870	1,995	4,883	5,807	4,736	4,134
Rio de Janeiro, Brazil	6,220	1,200	6,146	9,377	3,773	2,810	5,296
Rome, Italy	734	6,929	1,320	4,482	5,249	5,196	4,808
San Francisco, Calif., U. S.	5,661	6,467	7,364	7,814	10,247	3,904	1,858
Shanghai, China	5,218	12,201	5,183	2,117	8,061	9,501	7,061
Stockholm, Sweden	504	7,808	2,111	4,195	6,444	5,420	4,278
Sydney, Australia	10,006	7,330	8,952	5,685	6,843	9,513	9,272
Tokyo, Japan	5,540	11,408	5,935	3,194	9,156	8,799	6,299
Warsaw, Poland	320	7,662	1,630	4,048	5,958	5,517	4,667
Washington, D. C., U. S.	4,169	5,218	5,800	8,084	7,901	2,059	597

Cities	Hong Kong	Honolulu	Istanbul	Lisbon	London	Los Angeles	Manila
Berlin, Germany	5,440	7,309	1,078	1,436	579	5,724	6,132
Buenos Aires, Argentina	11,472	7,561	7,611	5,956	6,916	6,170	11,051
Cairo, Egypt	5,061	8,838	768	2,363	2,181	7,520	5,704
Calcutta, India	1,648	7,047	3,638	5,638	4,947	8,090	2,203
Capetown, South Africa	7,375	11,534	5,154	5,325	6,012	9,992	7,486
Caracas, Venezuela	10,167	6,013	6,048	4,041	4,660	3,632	10,620
Chicago, Ill., U. S.	7,793	4,250	5,477	3,990	3,950	1,745	8,143
Hong Kong (Victoria)	.....	5,549	4,984	6,853	5,982	7,195	693
Honolulu, Hawaii	5,549	.....	8,109	7,820	7,228	2,574	5,299
Istanbul, Turkey	4,984	8,109	.....	2,012	1,552	6,783	5,664
Lisbon, Portugal	6,853	7,820	2,012	.....	985	5,621	7,546
London, England	5,982	7,228	1,552	985	.....	5,382	6,672
Los Angeles, Calif., U. S.	7,195	2,574	6,783	5,621	5,382	.....	7,261
Manila, Philippines	693	5,299	5,664	7,546	6,672	7,261	.....
Mexico City, Mexico	8,782	3,779	7,110	5,390	5,550	1,546	8,835
Montreal, Canada	7,729	4,910	4,789	3,246	3,282	2,427	8,186
Moscow, U.S.S.R.	4,439	7,037	1,091	2,427	1,555	6,003	5,131
New York, N. Y., U. S.	8,054	4,964	4,975	3,364	3,458	2,451	8,498
Paris, France	5,985	7,438	1,400	904	213	5,588	6,677
Rio de Janeiro, Brazil	11,021	8,285	6,389	4,796	5,766	6,331	11,259
Rome, Italy	5,768	8,022	843	1,161	887	6,732	6,457
San Francisco, Calif., U. S.	6,897	2,393	6,703	5,666	5,357	347	6,967
Shanghai, China	764	4,941	4,962	6,654	5,715	6,438	1,150
Stockholm, Sweden	5,113	6,862	1,348	1,856	890	5,454	5,797
Sydney, Australia	4,584	5,073	9,294	11,302	10,564	7,530	3,944
Tokyo, Japan	1,794	3,853	5,560	6,915	5,940	5,433	1,866
Warsaw, Poland	5,144	7,355	863	1,715	899	5,922	5,837
Washington, D. C., U. S.	8,147	4,519	5,215	3,562	3,663	2,300	8,562

Air Distances Between World Cities

Source: Encyclopædia Britannica.

Cities	Mexico City	Montreal	Moscow	New York	Paris	Rio de Janeiro	Rome
Berlin, Germany	6,047	3,729	1,004	3,965	545	6,220	734
Buenos Aires, Argentina	4,592	5,615	8,376	5,297	6,870	1,200	6,929
Cairo, Egypt	7,688	5,414	1,803	5,602	1,995	6,146	1,320
Calcutta, India	9,492	7,607	3,321	7,918	4,883	9,377	4,482
Capetown, South Africa	8,517	7,931	6,300	7,764	5,807	3,773	5,249
Caracas, Venezuela	2,232	2,449	6,173	2,132	4,736	2,810	5,196
Chicago, Ill., U. S.	1,691	744	4,974	713	4,134	5,296	4,808
Hong Kong (Victoria)	8,782	7,729	4,439	8,054	5,985	11,021	5,768
Honolulu, Hawaii	3,779	4,910	7,037	4,964	7,438	8,285	8,022
Istanbul, Turkey	7,110	4,789	1,091	4,975	1,400	6,389	843
Lisbon, Portugal	5,390	3,246	2,427	3,364	904	4,796	1,161
London, England	5,550	3,282	1,555	3,458	213	5,766	887
Los Angeles, Calif., U. S.	1,546	2,427	6,003	2,451	5,588	6,331	6,732
Manila, Philippines	8,835	8,186	5,131	8,498	6,677	11,259	6,457
Mexico City, Mexico		2,318	6,663	2,094	5,716	4,771	6,366
Montreal, Canada	2,318		4,386	320	3,422	5,097	4,080
Moscow, U.S.S.R.	6,663	4,386		4,665	1,544	7,175	1,474
New York, N. Y., U. S.	2,094	320	4,665		3,624	4,817	4,281
Paris, France	5,716	3,422	1,544	3,624		5,699	697
Rio de Janeiro, Brazil	4,771	5,097	7,175	4,817	5,699		5,684
Rome, Italy	6,366	4,080	1,474	4,281	697	5,684	
San Francisco, Calif., U. S.	1,887	2,539	5,871	2,571	5,558	6,621	6,240
Shanghai, China	8,022	7,053	4,235	7,371	5,754	11,336	5,677
Stockholm, Sweden	5,959	3,667	762	3,924	958	6,651	1,234
Sydney, Australia	8,052	9,954	9,012	9,933	10,544	8,306	10,136
Tokyo, Japan	7,021	6,383	4,647	6,740	6,034	11,533	6,185
Warsaw, Poland	6,365	4,009	715	4,344	849	6,467	817
Washington, D. C., U. S.	1,887	488	4,858	205	3,829	4,796	4,434

Cities	San Francisco	Shanghai	Stockholm	Sydney	Tokyo	Warsaw	Washington
Berlin, Germany	5,661	5,218	504	10,006	5,540	320	4,169
Buenos Aires, Argentina	6,467	12,201	7,808	7,330	11,408	7,662	5,218
Cairo, Egypt	7,364	5,183	2,111	8,952	5,935	1,630	5,800
Calcutta, India	7,814	2,117	4,195	5,685	3,194	4,048	8,084
Capetown, South Africa	10,247	8,061	6,444	6,843	9,156	5,958	7,901
Caracas, Venezuela	3,904	9,501	5,420	9,513	8,799	5,517	2,059
Chicago, Ill., U. S.	1,858	7,061	4,278	9,272	6,299	4,667	597
Hong Kong (Victoria)	6,897	764	5,113	4,584	1,794	5,144	8,147
Honolulu, Hawaii	2,393	4,941	6,862	5,073	3,853	7,355	4,519
Istanbul, Turkey	6,703	4,962	1,348	9,294	5,560	863	5,215
Lisbon, Portugal	5,666	6,654	1,856	11,302	6,915	1,715	3,562
London, England	5,357	5,715	890	10,564	5,940	899	3,663
Los Angeles, Calif., U. S.	347	6,438	5,454	7,530	5,433	5,922	2,300
Manila, Philippines	6,967	1,150	5,797	3,944	1,866	5,837	8,562
Mexico City, Mexico	1,887	8,022	5,959	8,052	7,021	6,365	1,887
Montreal, Canada	2,539	7,053	3,667	9,954	6,383	4,009	488
Moscow, U.S.S.R.	5,871	4,235	762	9,012	4,647	715	4,858
New York, N. Y., U. S.	2,571	7,371	3,924	9,933	6,740	4,344	205
Paris, France	5,558	5,754	958	10,544	6,034	849	3,829
Rio de Janeiro, Brazil	6,621	11,336	6,651	8,306	11,533	6,467	4,796
Rome, Italy	6,240	5,677	1,234	10,136	6,135	817	4,434
San Francisco, Calif., U. S.		6,140	5,361	7,416	5,135	5,841	2,442
Shanghai, China	6,140		4,825	4,899	1,097	4,951	7,448
Stockholm, Sweden	5,361	4,825		9,696	5,051	501	4,123
Sydney, Australia	7,416	4,899	9,696		4,866	9,696	9,758
Tokyo, Japan	5,135	1,097	5,051	4,866		5,249	6,772
Warsaw, Poland	5,841	4,951	501	9,696	5,249		4,457
Washington, D. C., U. S.	2,442	7,448	4,123	9,758	6,772	4,457	

The National Park System of the United States

Source: National Park Service.

The National Park System of the United States, administered by the National Park Service, a bureau of the Department of the Interior, embraces a total of 177 areas, containing approximately 22,396,000 acres in federal ownership. Started with the establishment of Yellowstone National Park in 1872, the system includes not only the most extraordinary and spectacular scenic exhibits in the United States proper and in Alaska, Hawaii and the Virgin Islands but also a large number of sites distinguished for their historic or prehistoric importance or scientific interest. The number and extent of the various types of areas which comprise the system, as of December 31, 1957, are as follows:

Type of Area	Number	Federal land (acres)	Lands within exterior boundaries not federally owned (acres)	Total lands within exterior boundaries (acres)
National Parks	29	13,136,239.13	416,493.11	13,552,732.24
National Historical Parks	8	31,968.32	5,455.60	37,423.92
National Monuments	83	8,974,660.89	160,219.59	9,134,880.48
National Military Parks	11	24,450.04	2,329.24	26,779.28
National Memorial Park	1	68,679.72	1,694.58	70,374.30
National Battlefield Parks	3	5,516.25	2,177.84	7,694.09
National Battlefield Sites	5	188.63	547.35	735.98
National Historic Sites	10	1,354.07	2.12	1,356.19
National Memorials	12	4,428.90	58.13	4,487.03
National Cemeteries	10	215.10	5.00	220.10
National Seashore Recreational Area	1	24,705.23	3,794.77	28,500.00
National Parkways	3	85,558.59	27,256.85	112,815.44
National Capital Parks	1	38,518.31	1,446.30	39,964.61
Total, National Park System	177	22,396,483.18	621,480.48	23,017,963.66

¹ Includes Catoctin Mountain Park, Chesapeake and Ohio Canal, Prince William Forest Park, Baltimore-Washington Parkway, Sultland Parkway among the 797 units administered by National Capital Parks.

National Parks

Name, location and year established as National Park	Area in U. S. ownership, acres	Outstanding characteristics
Acadia (Maine), 1919	30,685.67	Rugged seashore on Mt. Desert Island and adjacent mainland
Big Bend (Texas), 1944	697,980.70	Mountains and desert bordering the Rio Grande
Bryce Canyon (Utah), 1928	35,010.38	Area of grotesque eroded rocks brilliantly colored
Carlsbad Caverns (N. Mex.), 1930	45,846.59	One of the world's largest known caves; spectacular flight of bats
Crater Lake (Oregon), 1902	160,290.33	Deep blue lake in crater of inactive volcano
Everglades (Florida), 1947	1,258,639.73	Subtropical area with abundant bird and animal life
Glacier (Montana), 1910	999,567.24	Rocky Mountain scenery with many glaciers and lakes
Grand Canyon (Arizona), 1919	673,203.35	Mile deep gorge, 4 to 18 miles wide, 217 miles long (105 in park)
Grand Teton (Wyoming), 1929	301,290.88	Picturesque range of high mountain peaks
Great Smoky Mts. (N. C.-Tenn.), 1930	507,869.50	Highest mountain range east of Black Hills; luxuriant plant life
Hawaii (Territory Hawaii), 1916	187,480.61	Spectacular volcanic area; luxuriant vegetation at lower levels
Hot Springs (Arkansas), 1921	986.11	47 mineral hot springs said to have therapeutic value
Isle Royale (Michigan), 1940	539,338.51	Largest wilderness island in Lake Superior; great moose herd
Kings Canyon (California), 1940	453,718.38	Huge canyons; high mountains; giant sequoias
Lassen Volcanic (California), 1916	104,480.68	Only recently active volcano in United States proper
Mammoth Cave (Kentucky), 1936	50,695.73	Vast limestone labyrinth with underground river
Mesa Verde (Colorado), 1906	51,017.87	Best preserved prehistoric cliff dwellings in United States
Mount McKinley (Alaska), 1917	1,939,319.04	Highest mountain in North America; spectacular wildlife
Mount Rainier (Washington), 1899	241,571.09	Greatest single-peak glacial system in United States
Olympic (Washington), 1938	888,557.79	Finest mountain wilderness of Pacific Northwest
Platt (Oklahoma), 1906	911.97	Cold mineral springs with distinctive properties
Rocky Mountain (Colorado), 1915	255,793.54	Section of the Rocky Mountains; 65 named peaks over 10,000 feet
Sequoia (California), 1890	385,258.32	Giant sequoias; Mt. Whitney, highest mountain in U. S. proper
Shenandoah (Virginia), 1935	193,062.74	Tree-covered mountains; scenic Skyline Drive
Virgin Islands (U. S. V. Islands), 1956	5,086.41	Beaches; lush hills; prehistoric Carib Indian relics
Wind Cave (South Dakota), 1903	27,892.66	Limestone caverns in Black Hills, buffalo herd
Yellowstone (Wyoming-Montana-Iaho), 1872	2,213,206.55	World's greatest geyser area; spectacular falls and canyon; one of world's great wildlife sanctuaries
Yosemite (California), 1890	758,019.60	Mountains; inspiring gorges and waterfalls; giant sequoias
Zion (Utah), 1919	128,457.16	Multicolored gorge in heart of southern Utah desert

National Historical Parks

Name and location	Acreage in U. S. ownership	Name and location	Acreage in U. S. ownership
Abraham Lincoln (Kentucky)	116.50	Joshua Tree (California)	495,233.44
Appomattox Court House (Va.)	968.25	Katmai (Alaska)	2,697,590.00
Chalmette (Louisiana)	69.61	Lava Beds (California)	46,238.69
Colonial (Virginia)	7,267.25	Lehman Caves (Nevada)	640.00
Cumberland Gap (Ky.-Tenn.-Va.)	20,184.20	Meriwether Lewis (Tennessee)	300.00
Independence (Pennsylvania)	18.20	Montezuma Castle (Arizona)	783.09
Morristown (New Jersey)	957.96	Mound City Group (Ohio)	67.50
Saratoga (New York)	2,386.35	Muir Woods (California)	435.18
		Natural Bridges (Utah)	2,649.70
		Navajo (Arizona)	360.00
		Ocmulgee (Georgia)	683.48
		Oregon Caves (Oregon)	480.00
		Organ Pipe Cactus (Arizona)	328,691.01
		Perry's Victory (Ohio)	14.25
		Petrified Forest (Arizona)	86,017.23
		Pinnacles (California)	12,817.77
		Pipe Spring (Arizona)	40.00
		Pipestone (Minnesota)	275.93
		Rainbow Bridge (Utah)	160.00
		Saguaro (Arizona)	60,987.60
		Scotts Bluff (Nebraska)	2,171.35
		Sitka (Alaska)	54.16
		Statue of Liberty (New York)	10.38
		Sunset Crater (Arizona)	3,040.00
		Timpanogos Cave (Utah)	250.00
		Tonto (Arizona)	1,120.00
		Tumacacori (Arizona)	10.00
		Tuzigoot (Arizona)	42.67
		Walnut Canyon (Arizona)	1,641.62
		White Sands (New Mexico)	140,247.04
		Whitman (Washington)	45.84
		Wupatki (Arizona)	34,607.03
		Yucca House (Colorado)	9.60

National Monuments

Ackia Battleground (Miss.)	49.15
Andrew Johnson (Tennessee)	16.33
Arches (Utah)	34,249.94
Aztec Ruins (New Mexico)	27.14
Badlands (South Dakota)	98,486.39
Bandelier (New Mexico)	27,048.89
Big Hole Battlefield (Montana)	200.00
Black Canyon of the Gunnison (Colorado)	13,176.02
Booker T. Washington (Va.)	164.60
Cabrillo (California)	.50
Canyon de Chelly (Arizona)	83,840.00
Capitol Reef (Utah)	33,970.61
Capulin Mountain (N. Mex.)	680.42
Casa Grande (Arizona)	472.50
Castillo de San Marcos (Fla.)	18.51
Castle Clinton (New York)	1.00
Cedar Breaks (Utah)	6,172.20
Chaco Canyon (New Mexico)	20,989.35
Channel Islands (California)	26,819.26
Chiricahua (Arizona)	10,480.90
Colorado (Colorado)	17,606.76
Craters of the Moon (Idaho)	48,003.86
Custer Battlefield (Montana)	765.34
Death Valley (Calif.-Nev.)	1,878,798.24
Devils Postpile (California)	798.46
Devils Tower (Wyoming)	1,266.91
Dinosaur (Utah-Colorado)	190,962.13
Edison Laboratory (New Jersey)	1.51
Effigy Mounds (Iowa)	1,204.36
El Morro (New Mexico)	880.80
Fort Frederica (Georgia)	94.40
Fort Jefferson (Florida)	47,125.00
Fort Laramie (Wyoming)	214.41
Fort Matanzas (Florida)	227.76
Fort McHenry (Maryland)	43.26
Fort Pulaski (Georgia)	5,361.62
Fort Sumter (South Carolina)	2.40
Fort Union (New Mexico)	720.60
Fort Vancouver (Wash.)	59.91
George Washington Birthplace (Virginia)	393.68
George Washington Carver (Missouri)	210.00
Gila Cliff Dwellings (N. Mex.)	160.00
Glacier Bay (Alaska)	2,274,248.44
Gran Quivira (New Mexico)	450.94
Grand Canyon (Arizona)	193,040.00
Great Sand Dunes (Colorado)	34,979.88
Harpers Ferry (W. Va.-Md.)	469.23
Homestead (Nebraska)	162.73
Hovenweep (Utah-Colorado)	505.43
Jewel Cave (South Dakota)	1,274.56

National Military Parks

Chickamauga and Chattanooga (Georgia-Tennessee)	8,189.64
Fort Donelson (Tennessee)	102.54
Fredericksburg and Spotsylvania (Virginia)	2,467.73
Gettysburg (Pennsylvania)	2,724.38
Gullford Courthouse (N. C.)	150.53
Kings Mountain (S. C.)	4,012.00
Moore's Creek (North Carolina)	42.23
Petersburg (Virginia)	1,505.55
Shiloh (Tennessee)	3,601.78
Stones River (Tennessee)	323.86
Vicksburg (Mississippi)	1,329.80

National Memorial Park

Theodore Roosevelt (N. Dak.)	68,679.72
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National Battlefield Parks

Kennesaw Mountain (Georgia)	3,094.21
Manassas (Virginia)	1,731.03
Richmond (Virginia)	691.01

National Battlefield Sites

Antietam (Maryland)	183.63
Brices Cross Roads (Mississippi)	1.00
Cowpens (South Carolina)	1.00
Fort Necessity (Pennsylvania)	2.00
Tupelo (Mississippi)	1.00

National Historic Sites

Name and location	Acreage in U. S. ownership
Adams (Massachusetts)	4.77
Fort Raleigh (North Carolina)	18.50
Hampton (Maryland)	45.42
Home of Franklin D. Roosevelt (New York)	93.69
Hopewell Village (Pa.)	848.06
Jefferson National Expansion Memorial (Missouri)	82.58
Old Phila. Custom House (Pa.) .....	.79
Salem Maritime (Massachusetts)	8.61
San Juan (Puerto Rico)	40.00
Vanderbilt Mansion (New York)	211.65

National Memorials

Coronado (Arizona)	2,745.33
Custis-Lee Mansion (Virginia)	2.71
De Soto (Florida)	24.18
Federal Hall (N. Y.) .....	.45
Fort Caroline (Florida)	119.10
House Where Lincoln Died (D. C.) .....	.05
Lincoln Memorial (D. C.) .....	.61
Lincoln Museum (D. C.) .....	.18
Mount Rushmore (S. Dak.)	1,220.32
Thomas Jefferson (D. C.)	1.20
Washington Monument (D. C.) .....	.37
Wright Brothers (N. C.)	314.40

National Cemeteries¹

Name and location	Acreage in U. S. ownership
Antietam (Maryland)	11.36
Battleground (D. C.)	1.03
Fort Donelson (Tennessee)	15.34
Fredericksburg (Virginia)	12.00
Gettysburg (Pennsylvania)	15.55
Poplar Grove (Virginia)	8.72
Shiloh (Tennessee)	10.25
Stones River (Tennessee)	20.09
Vicksburg (Mississippi)	117.85
Yorktown (Virginia)	2.91

National Seashore Recreational Area

Cape Hatteras (North Carolina)	24,705.23
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National Parkways

Blue Ridge (N. C.-Va.)	57,374.92
George Washington Memorial (Va. Md.)	3,281.23
Natchez Trace (Tenn.-Ala.-Miss.)	24,902.44

National Capital Parks

National Capital Parks (D. C.-Va.-Md.-W. Va.)	38,518.31
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¹ For Arlington National Cemetery see index. It is not included here because it is under the jurisdiction of the Department of the Army rather than of the National Park Service.

Museums of the United States

Source: Questionnaires to Museums.

NEW YORK CITY

American Academy of Arts and Letters: 633 W. 155th St., New York 32. Open: wkdys. & Sun., during exhib. 2-5 (closed Mon.). Otherwise by appt. Free.

Painting, sculpture by members of Academy and Natl. Inst. of Arts & Letters. Fall exhibition of Hassam Fund Purchases. Two winter exhibitions: on special theme, and Candidates for Grants in Art. Spring exhibition by new members and recipients of grants and honors.

American Museum of Natural History: Central Park W. at 79th St., New York 24. Open: wkdys. 10-5, Sun. & hldys. 1-5. Free. All branches of natural sciences with exhibits including astronomy at American Museum-Hayden Planetarium.

Brooklyn Museum: Eastern Pkwy., Brooklyn 38, N. Y. Open: wkdys. 10-5, Sun. & hldys. 1-5 (closed Xmas). Free.

American painting, Colonial to modern. 19th-20th-century European painting. Modern sculpture. Prints and drawings. Egyptian and primitive art. Ancient art and art of Near and Far East.

Cloisters: Ft. Tryon Pk., New York 34. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5 (May-Sept., Sun., 1-6). Free.

Cloisters, chapel, chapter house reconstructed from parts of old European structures. Frescoes, polychromed statues, stained glass, Gothic tapestries. Branch of Metropolitan Museum of Art.

Frick Collection: 1 E. 70th St., New York 21. Open: wkdys. 10-5 (closed Mon. & mo. of Aug.), Sun. & hldys. 1-5. Free.

Paintings, prints, drawings of 14th to 19th centuries. Italian Renaissance and French sculpture and furniture. Chinese and French porcelain. Concerts, lectures.

Guggenheim (Solomon R.) Museum, Guggenheim Foundation: 7 E. 72nd St., New York 21.* Open: wkdys. 10-6 (closed Mon.), Sun. 12-6. Free.

Works of leading 20th century European and American painters and sculptors.

Hispanic Society of America (Museum & Library): Broadway betw. W. W. 155th & 156th Sts., New York 32. Museum open: wkdys. 10-4:30, Sun. 1-5 (closed Mon., July 4, Thns. Day, Xmas). Library open: wkdys. 1-4:30 (closed Sun., Mon., hldys., mo. of Aug.). Free.

Paintings, sculpture, decorative arts, manuscripts and incunabula, representative of Hispanic culture. Works on Hispanic art, history, and published literature of which much is devoted to objects in the collection.

Jewish Museum: 1109 5th Ave., New York 28. Open: Mon.-Thurs. 1-5 (closed Fri., Sat.), Sun. 11-6. Free.

Jewish ceremonial and historical objects. Works of art, past and contemporary. Junior gallery, child's map of Israel.

* Temporary galleries. New building under construction at 88th St. and 5th Ave.

Metropolitan Museum of Art: 5th Ave. at 82nd St., New York 28. Open: wkdys. 10-5, Sun., hldys. 1-5. Free.

Extensive collection of European and American paintings, decorative arts, prints. Egyptian, Asiatic, Classical art. Musical instruments, arms and armor. American period rooms. Costumes and textiles. *See also* Cloisters.

Museum of Modern Art: 11 W. 53rd St., New York 19. Open: wkdys. 11-6, Sun. 1-7. Adm. 75c (children 25c).

Founded 1929 to aid study of modern art and its application to manufacturing and practical life. Constantly changing exhibitions of contemporary painting, sculpture, prints, photography, architecture, industrial design, films.

Museum of the American Indian, Heye Foundation: Broadway at 155th St., New York 32. Open: Tues.-Sat. 1-5 (closed Sun., Mon., hldys., mos. of July & Aug.). Free. Archaeology and ethnology of Americas from Arctic Circle to Tierra del Fuego.

Museum of the City of New York: 5th Ave. at 104th St., New York 29. Open: wkdys. 10-5 (closed Mon.), Sun., hldys. 1-5, closed Xmas. Free.

History and life of New York City. Period costumes, furniture, miniature scenes, portraits, paintings, prints, manuscripts, theater & music collection, silver, horse car, etc.

National Academy of Design: 1083 5th Ave. (at 90th St.) New York 28. Open: wkdys. & Sun. 1-6 (during exhibitions).

Special annual exhibitions by selected organizations Oct. thru May.

New York Historical Society: Central Park W. at 77th St., New York 24. Museum open: wkdys. & Sun. 1-5, (Sat. 10-5, closed Mon.). Library open: Mon.-Sat., 10-5. (Closed NY Day, July 4, Thnks. Day, Xmas, month of Aug.). Free.

New York city and state historical exhibits. Early American paintings and portraits. Period rooms. Audubon watercolors. John Rogers statuettes.

Roosevelt (Theodore) Museum: 28 E. 20th St., New York 3. Open: wkdys. 10-5 (closed Mon.), Sun. & hldys. 1-5 (closed NY Day, Good Fri., Easter, Thnks. Day, Xmas). Free.

Restored birthplace of Roosevelt. Mounted lion shot by him in Africa. Photographs, letters, trophies, personal items.

Whitney Museum of American Art: 22 W. 54th St., New York 19. Open: wkdys. & Sun. 1-5 (closed major holidays). Free.

Sculpture, paintings, watercolors, drawings by 20th-century American artists. Exhibitions of contemporary and historical American art.

CHICAGO

Art Institute of Chicago: Michigan Ave. at Adams St., Chicago 3, Ill. Open: wkdys.

9-5, Sun. 12-5. Adm. 25c. (free Wed., Sat., Sun., hldys.).

Paintings, sculpture, prints, drawings. Oriental arts; European, American decorative arts. Thorne Miniature Rooms.

Chicago Academy of Sciences, Museum of Natural History: Lincoln Park—2001 N. Clark St. Open: daily 10-5. Free.

Emphasis on regional natural history. Exhibits of animal and plant life, minerals and fossils of Chicago region. Research collections from N. America.

Chicago Historical Society: N. Clark St. at North Ave., Chicago 14, Ill. Open: wkdys. 9:30-4:30, Sun. 12:30-5:30. Free (Sun., Mem. Day, July 4, Lab. Day 25¢ for adults).

Exhibits and period rooms from discovery and exploration of America to present. Special emphasis on history of Chicago. Washington and Lincoln exhibits.

Chicago Natural History Museum (formerly Field Museum): Roosevelt Rd. at Lake Shore Dr., Chicago 5, Ill. Open: wkdys. & Sun.—Nov.-Feb. 9-4; May-Aug. 9-6; Mar., Apr., Sept., Oct. 9-5 (closed Xmas and NY Day). Adm. 25¢. (free Thurs., Sat., Sun.). Exhibits in anthropology, botany, geology, zoology. Prehistoric skeletons. Dioramas of Stone-Age Europe. Vast Egyptian collection. Model of moon.

Museum of Science and Industry: 57th St. at Lake Michigan, Chicago 37, Ill. Open: fall & winter—wkdys. 9:30-4, Sat., Sun. & hldys. 9:30-6; spring & summer—everyday 9:30-6. Free (small fee to certain exhibits).

"Do it yourself" museum where learning is fun. Operating coal mine, real submarine, giant heart, Paul Bunyan house. Original "Atoms for Peace" Exhibit.

Oriental Institute of the University of Chicago: 1155 E. 58th St., Chicago 37, Ill. Open: Tues. & Weds. 10-12, 1-5, Thurs., Fri., Sat., Sun. 10-5 (closed Mon.). Free.

Representative collections of ancient Near Eastern objects, including 40-ton human-headed winged bull from Khorsabad, 16-ft. statue of Tutankhamon from Egypt, gold ornaments, ivories.

Vanderpoel (John H.) Memorial Art Gallery: Longwood Dr. at 96th St., Chicago 43, Ill. Open: wkdys. & Sun. 9-5 (closed hldys.). Free.

Paintings, watercolors, etchings, sculpture contributed by the artists in tribute to Mr. Vanderpoel.

WASHINGTON, D. C.

Corcoran Gallery of Art: 17th St. at New York Ave., N. W., Washington 6, D. C. Open: wkdys. 10-4:30 (closed Mon.; Sat. 9-4:30), Sun. & hldys. 2-5 (closed Xmas, NY Day & July 4). Free.

Specializes in American art, but has notable collection of 17th century Dutch and 19th century French paintings. Persian rugs, Italian majolica, Greek and

Roman antiquities. Barye bronzes. American sculpture. Annual and special exhibitions of U. S. art.

Freer Gallery of Art, Smithsonian Institution: Jefferson Dr. at 12th St., S.W., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Oriental paintings, sculpture, bronzes, pottery, metalwork, manuscripts. Largest extant Whistler collection.

National Air Museum, Smithsonian Institution: The Mall, 10th and Jefferson Dr., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Full-sized aircraft exhibited, including Wright brothers' *Kitty Hawk Flyer*, Lindbergh's *Spirit of St. Louis*, Wiley Post's *Winnie Mae*, Bell *Supersonic X-1*.

National Collection of Fine Arts: Constitution Ave. at 10th St., Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Art collections given by Harriet Lane Johnston, Ralph Cross Johnson, William T. Evans, John Gellatly and others. Room devoted to Albert Pinkham Ryder.

National Gallery of Art: Constitution Ave. at 6th St., Washington 25, D. C. Open: wkdys. 10-5, Sun. 2-10 (closed Xmas & N Y Day). Free.

Paintings, sculpture, drawings, prints, decorative arts given by Mellon, Kress, Widener, Rosenwald, Dale, the Booths, the Garbisches and others. Index of American Design.

Smithsonian Institution: on the Mall, Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Maintains the following museums and art galleries: Freer Gallery of Art, National Air Museum, National Collection of Fine Arts, National Gallery of Art, U. S. National Museum. See those entries.

United States National Museum, Smithsonian Institution: several buildings on the Mall, Washington 25, D. C. Open: daily 9-4:30 (closed Xmas). Free.

Exhibits in anthropology, zoology, botany, geology, paleontology, engineering, industry, crafts, numismatics, philately, cultural, civil and military history.

PHILADELPHIA

Academy of Natural Sciences of Philadelphia: 19th and the Parkway, Philadelphia 3, Pa. Open: wkdys. 10-5 (summer 10-4), Sun. 1-5. Adm. 50c (children 25c).

Large habitat groups of animals of North America, Africa, Asia. Hall of Earth History, Audubon Bird Hall. Minerals, gems.

Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts: 20th St. at Benj. Franklin Pkwy., Philadelphia 3, Pa. Open: wkdys. 12-5 (Sat. 10-5, closed Mon.), Sun. 12-5. Adm. 50¢.

Activities grouped into 7 major categories: Benj. Franklin Memorial; monthly

Journal; lectures; library; medal awards; museum of science and industry, including planetarium; research laboratories.

Pennsylvania Academy of the Fine Arts: Broad and Cherry Sts., Philadelphia 2. Open: wkdys. 10-5 (closed Mon., Good Fri., Mem. Day, July 4, Thnks. Day, Xmas, NY Day), Sun. & hldys. 1-5. Free.

Permanent collections include American art from 18th century to present. Special exhibitions.

Philadelphia Museum of Art: Parkway at 26th St., Philadelphia 30, Pa. Open: wkdys. & Sun. 9-5 (closed all legal hldys.). Free. Paintings: old masters, contemporary French, American, Mexican. Prints, decorative arts, period rooms. Oriental arts. Operates Colonial Chain of Houses in Fairmount Park, Rodin Museum and Samuel S. Fleischer Art Memorial.

MUSEUMS IN OTHER CITIES

(Free unless otherwise noted)

Alabama Museum of Natural History: University of Alabama, Tuscaloosa. Open: wkdys. & Sun. 8-5.

All phases of natural history with emphasis on geology.

Atomic Energy, American Museum of: Oak Ridge, Tenn. Open: wkdys. 9:30-5; Sun. 12:30-6:30. Adm. adults, 50c; students, 25c (children under 12 free).

Demonstrations, exhibits, motion pictures, models, etc. relating to atomic energy. Traveling exhibits available free to qualified exhibitors in U. S.*

Baseball Hall of Fame and Museum, Natl.: Main St., Cooperstown, N. Y.

Relics, pictures, documents of baseball history. Bronze plaques of game's immortals. See also Hall of Fame in index.

Berkshire Museum: Pittsfield, Mass. Open: wkdys. 10-5 (closed Mon.), Sun. 2-5.

Painting, sculpture, decorative arts—ancient to modern; galleries of birds, animals, biology. Peary arctic sledge. Original "One Hoss Shay." First Wm. Stanley transformer.

(Boston) Museum of Fine Arts: 465-479 Huntington Ave., Boston 15, Mass. Open: wkdys. 10-5 (Wed., Oct.-May, 10-10; closed Mon. & hldys.), Sun. 1:30-5:30.

European and American paintings. Early American silver, furniture, interiors. Print collection largest in U. S. Noted Asiatic, Egyptian, Classical collections.

Buffalo Fine Arts Academy—Albright Art Gallery: 1285 Elmwood Ave., Buffalo 22, N. Y. Open: Sun. & Mon. 2-6, rest of wk. 10-5 (closed Thnks. Day, Xmas, NY Day).

Comprehensive collection of contemporary painting. English 18th and French 19th-century works. Sculpture 3000 B.C. to present.

* Send inquiries to Museum Division, Oak Ridge Institute of Nuclear Studies, P. O. Box 117, Oak Ridge, Tenn.

Buffalo Museum of Science: Humboldt Park, Buffalo, N. Y. Open: wkdys. 10-5 (Sat. 9-5), Sun. & hldys. 1:30-5:30.

Extensive natural history collections. African and South Sea exhibits. Chinese pottery. Babylonian seals. Living museum.

California Academy of Sciences: Golden Gate Park, San Francisco 18. Open: wkdys. & Sun. 10-5.

North American and African habitat groups. Astronomical exhibits, clocks, watches, lamps, minerals, plants, Steinhart Aquarium. Morrison Planetarium. Continuous research program.

California Palace of the Legion of Honor: Lincoln Park, San Francisco. Open: daily 10-5 (hldys. 1-5).

European and American paintings. Rodin sculpture and drawings. Furniture, bronzes, porcelain. Egyptian art.

Carnegie Institute: 4400 Forbes St., Pittsburgh 13, Pa. Open: wkdys. 10-5 (Tues. during winter mos. 10-10), Sun. 2-5.

Department of Fine Arts: European and American paintings, ancient sculpture. Museum: exhibits in history and natural history. Music Hall. Carnegie Library.

Cincinnati Art Museum: Eden Park, Cincinnati 6, Ohio. Open: wkdys. 10-5 (Tues. Oct.-Apr., 10-10), Sun. & hldys. 2-5 (closed Thns. Day & Xmas).

Painting, prints, decorative arts, period rooms, Near & Far Eastern potteries and bronzes. Egyptian, Greco-Roman, Medieval, Oriental sculptures. Ancient musical instruments.

Cleveland Museum of Art: Wade Park, Cleveland 6, Ohio. Open: wkdys. 9-5 (Wed. 9 A.M.-10 P.M., Fri. evenings during lecture season 7-10, closed Mon., July 4, Thns. Day, Xmas), Sun. 1-6.

Classical and modern art of all nations and ages. Paintings, sculpture, graphic arts, furniture, silver, prints, arms and armor, textiles, Byzantine, Medieval, Early American collections.

Cleveland Museum of Natural History: 10600 East Blvd., Cleveland 6, Ohio. Open: wkdys. 9-5 (Weds. 9-10, closed Mon.), Sun. 1-5:30.

Natural history exhibits from formation of our solar system to present—animals, plant life, geology. Mueller Planetarium, Hall of Nature.

Colonial Williamsburg: Williamsburg, Va. Open: daily (closed Xmas). Adm. \$3 for block ticket; students and servicemen \$1. Children free.

Restoration of 18th-century capital of Virginia colony: 400 reconstructed or restored buildings; 83 ac. of gardens; 3 18th-century restaurants.

Colorado Springs Fine Arts Center: 30 W. Dale St., Colorado Springs, Colo. Open: wkdys. 9-5 (closed Mon. from Sept. thru May), Sun. 1:30-5.

Contemporary paintings. Collection of Spanish-American New Mexican Santos. Southwest Indian arts and crafts.

Corning Glass Center: Corning, N. Y. Open: wkdys. & Sun. 9:30-5 (closed Mon.).

Museum has most comprehensive collection of glass in world; Hall of Science and Industry shows many uses of glass; factory has comfortable gallery where visitors may watch glass being made.

Currier Gallery of Art: 192 Orange St., Manchester, N. H. Open: wkdys. 10-5, Sun. 2-5.

European and American paintings. American decorative arts of 18th century, including fine New England furniture, silver and early glass.

Davenport Public Museum: Brady St. at 7th, Davenport, Iowa. Open: wkdys. 9-5 (closed Mon.), Sun., hldys. 2-5.

Science, history, applied art exhibits, including anthropology, ethnology, Oriental and Mediterranean culture.

Denver Art Museum: 5 separate branches. Administration offices: Schleier Gallery, 1343 Acoma St., Denver 4, Colo. Open wkdys. 9-5 (closed Mon.), Sun. 2-5.

Ancient Mediterranean, European, American paintings and decorative arts. Oriental, South Sea, African, Latin American, American Indian arts and crafts.

Denver Museum of Natural History: City Park, Denver 6. Open: wkdys. 9-4:30, Sun. 12-5.

Natural history of North and South America, Australia and South Pacific. Habitat groups of mammals and birds. Minerals, fossil mammal and reptile skeletons, New World archaeology.

Detroit Historical Museum: 5401 Woodward, Detroit 2. Open: wkdys. 1-10 (Sat. 9-6, closed Mon.), Sun. 1-10.

Industrial, social history, marine and military exhibits. Streets of Detroit 1840-50, 1870-80. Large model railroad.

Detroit Institute of Arts: 5200 Woodward Ave., Detroit, Mich. Open: Sept.-June—wkdys. 1-10 (Sat. 9-6, closed Mon.), Sun. 9-6; July & Aug.—wkdys. & Sun. 9-6 (closed Mon.); closed all hldys.

Survey of history as expressed in arts. Paintings, sculpture, furniture, glass, gold work, ivory, graphic arts, textiles, armor. Murals by Diego Rivera. Movies.

Farmers' Museum: Lake Rd., Route 80, Cooperstown, N. Y. Open: May 1-Nov. 1, 9-6 daily. Re-created Village Crossroads, Nov. 1-Apr. 30, 9-5 daily exc. Mon. Adm. \$1 May 1-Nov. 1, 50¢ Nov. 1-Apr. 30 (children 15¢).

Early farm and handicraft tools. School house, country store, smithy, print shop, doctor's and lawyer's offices, pharmacy, tavern, farm unit. Cardiff Giant. Operated by N. Y. State Historical Assn.

Fenimore House: Lake Rd., Route 80,

Cooperstown, N. Y. Open: May 1–Nov. 1—daily 9–6; Nov. 1–Apr. 30 daily 9–5. Adm. 75¢ (children 15¢).

American portraits, genre paintings. Browere life masks of Founding Fathers. Hamilton–Burr Room. James Fenimore Cooper Collection. Folk art. Library. Operated by N. Y. State Historical Assn.

Florida State Museum: Gainesville, Fla. Open: wkdys. 9:30–5, Sun. & hldys. 1–5. Archaeology, ethnology, ornithology and other phases of natural history. Also history and industry.

Gardner (Isabella Stewart) Museum: 280 The Fenway, Boston 15, Mass. Open: Tues., Thurs., Sat. 10–4, Sun. 2–5, first Thurs. of each mo., 10 A.M.–10 P.M. (closed other days, natl. hldys., and during Aug.).

Renaissance art in building of Venetian palace style. Painting, sculpture, tapestries, furniture.

Heard Museum: 22 E. Monte Vista Rd., Phoenix, Ariz. Open (Nov. 1–May 1): wkdys. 10–5 (closed Mon.), Sun. 1–5.

Prehistoric and historic pottery, blankets, beadwork, carvings, weapons, etc. from various parts of world.

Herron (John) Art Museum: 110 E. 16th St., Indianapolis, Ind. Open: wkdys. 9–5 (closed Mon. & hldys.), Sun. 1–6.

European paintings from Renaissance to present. American paintings of 19th and 20th centuries. Egyptian, Greek, Asiatic sculpture and ceramics, Chinese bronzes, ceramics, jades.

Huntington (Henry E.) Library and Art Gallery: San Marino 9, Calif. Open: wkdys. & Sun. 1–4:30 (closed Mon. and during Oct.).

18th century British paintings. Library exhibits of English and American history and literature. Gutenberg Bible. Franklin's autobiography in his handwriting. Botanical garden. Research facilities.

Illinois State Museum: Springfield, Ill. Open: wkdys. 8:30–5, Sun. 2–5.

Natural history and art. Anthropological, archaeological, botanical, geological, zoological collections.

International Folk Art, Museum of (Unit of the Museum of N. Mex.): Off Old Pecos Rd., Santa Fe, N. Mex. Open: Mon.–Sat. 9–12, 1–5, Sun. 2–4.

Collection of folk art from 50 countries. One of two such museums in world. (Other is in Sweden.)

The Layton Collection: Memorial Center, Milwaukee, Wis. Open: wkdys. 9–5, Sun. 2–5.

Exhibitions of selections from permanent collections.

Los Angeles County Museum: Exposition Park, Los Angeles 7, Calif. Open: wkdys. & Sun. 10–5 (closed Mon., Thns. Day, Xmas).

American, European, Eastern art. Ameri-

can Indian exhibits. Habitat groups of African and North American animals. California History Hall. La Brea fossils.

Mint Museum of Art: 501 Hempstead Pl., Charlotte, N. C. Open: wkdys. 10–5 (closed Mon.), Sun. 3–5. Museum closed during July and August.

American and European paintings and prints. Relics of former U. S. branch mint.

Mound State Monument Archaeological Museum: Moundville, Ala. Open: wkdys & Sun. 8–5. Adm. 50¢ adults, 25¢ children.

Uncovered Indian burials, etc., of Moundville Indians. Operated by Alabama Museum of Natural History.

Mystic Seaport (Marine Historical Association, Inc.): Mystic, Conn. Open: wkdys. & Sun. 9–5 (closed Thns. Day, Xmas.). Adm. \$1.50 (children 50¢).

Reconstructed seaport of Age of Sail. Typical waterfront street. *Charles W. Morgan*, last of wooden whaleships.

Navajo Ceremonial Art, Museum of: Camino Lejo, near old Pecos Rd., Santa Fe, N. Mex. Open: wkdys. 9–12, 1–4:30 (closed Mon.), Sun. 3–5. Adm. 25¢ (free Sun.).

Sand paintings, ceremonial objects, baskets, blankets, silver. Music records of chants. Comparative material from Asia and elsewhere. Library.

Nelson (William Rockhill) Gallery of Art and Atkins Museum of Fine Arts: 4525 Oak, Kansas City 11, Mo. Open: Tues.–Sat. 10–5, Sun. 2–6 (closed Mon., NY Day, July 4, Thns. Day, Xmas.). Adm. 25¢ (children 10¢) (free Sat. & Sun.).

European paintings from 13th century to present. Paintings and sculpture from Kress Collection. Extensive Chinese collection. Egyptian, Greek, Roman collections. English pottery. Concerts, movies.

New York State Historical Association: Lake Rd., Route 80, Cooperstown, N. Y. Maintains Farmers' Museum and Fenimore House. See those entries.

Newark Museum: 43–49 Washington St., Newark 1, N. J. Open: Oct.–June—wkdys. 12–5:30 (Wed. & Thur. 12–5:30, 7–9:30), Sun. & hldys. 2–6; July–Sept.—wkdys. 12–5, Sun. & hldys. 2–6.

Collections: American painting, sculpture; Tibetan, Chinese, Japanese arts; decorative arts, ancient glass & ceramics; natural science, ethnology, mechanical models. Planetarium. Junior museum.

Ringling (John & Mable) museums: Sarasota, Fla. Museum of Art, John Ringling Residence, Museum of the Circus open wkdys. 9–4:30, Sun. 12:30–4:30. Closed Xmas and Labor Day. Adm: Art Museum, \$1; Residence, \$1; Circus Museum, 50¢; general admission, \$2.

Collection of old masters and 18th-century theater in Art Museum. Elaborate furnishings in Residence. Illustrative and historical material in Circus Museum.

Rosicrucian Egyptian, Oriental Museum and Art Gallery: San Jose, Calif. Open: wkdys. 9-12 & 1-5 (Sat. 1-5), Sun. 12-5.

Egyptian and Oriental antiquities. Mummies, statuary, jewelry, utensils, clothing. Reproductions of Egyptian rock tomb and temple. Art gallery.

(St. Louis) City Art Museum: Forest Park, St. Louis 5, Mo. Open: wkdys. & Sun. 10-5 (Mon. 2:30-9:30).

Collection covers all fields of fine art: painting, sculpture, graphic art, decorative art, period rooms. Public restaurant.

San Diego, Fine Arts Gallery of: Plaza de Panama, Balboa Park, San Diego, Calif. Open: wkdys. 10-5, Sun. 1-5:30 (closed Mon. & mo. of Sept.).

European, American paintings, 14th century to present, with emphasis on Spanish, Italian, Flemish and Dutch art. Asiatic arts and prints.

San Diego Museum of Man: California Quadrangle, Balboa Park, San Diego, Calif. Open: wkdys. 10-4:45, Sun. 12-4:45.

Exhibits on Egypt; primitive weapons; Choco, North American, San Diego County Indians; Mayan archaeology.

San Diego Society of Natural History—Natural History Museum: San Diego, Calif. Open: wkdys. & Sun. 10-4:30 (closed Xmas, NY Day).

Mammals, birds, fossils, shells, plants, insects, minerals. Emphasis on Southwestern U. S., Sonora and Lower California.

San Francisco Museum of Art: War Memorial Bldg., San Francisco, Calif. Open: Tues.-Fri. 12-10, Sat., Sun., Mon. 1-6.

Contemporary European, American paintings, sculpture, drawings, prints, architecture, photographs, decorative arts, including work by San Francisco artists. 40-50 exhibitions annually.

Southwest Museum, Inc.: Marmion Way at Museum Dr., Highland Pk., Los Angeles 42,

Calif. Open: wkdys. & Sun. 1-5 (closed Mon., & certain hldys.).

American Indian exhibits, ancient and modern. Library, lectures. Casa de Adobe, reproduction of adobe hacienda, located at 4605 N. Figueroa St.; open Wed. & Sun. 2-5 P.M.

Toledo Museum of Art: Monroe at Scottwood, Toledo 2, Ohio. Open: wkdys. 9-5 (Mon. 1-5), Sun. hldys. 1-5.

Dutch, French, English, American paintings. Old Masters. Prints, manuscripts, sculpture. Ancient, modern glass. Oriental, Egyptian art. Library, concerts. Founded by Edward Drummond Libbey.

Virginia Museum of Fine Arts: Boulevard at Grove Ave., Richmond 20. Open: wkdys. 11-5 (Fri. in winter 2-5, 8-10; closed Mon.), Sun. 2-5. Free Wed., Sat., Sun. (other days 30¢).

European, American, Oriental art; French and American paintings. European tapestries; imperial Russian jewels. Museum theater with annual season of 5 plays.

Wadsworth Atheneum: 25 Atheneum Sq., N., Hartford 3, Conn. Open: wkdys. 10-5 (Sat. 9-5, closed Mon., Gd. Fri., July 4, Labor Day, Thns. Day, Xmas, NY Day), Sun. 1:30-5:30.

European and American paintings and drawings from 1400 to present. Bronzes, porcelain, silver. American period rooms and furniture. Library, concerts, movies.

Walters Art Gallery: Charles and Centre Sts., Baltimore 1, Md. Open: wkdys. 11-5 (July-Aug. 11-4), Sun. & hldys. 2-5 (closed NY Day, July 4, Thns. Day, Xmas Eve, Xmas).

Art from ancient empires to 19th century Europe. Important collections of Etruscan art and medieval illuminated books.

Worcester Art Museum: 55 Salisbury St., Worcester 9, Mass. Open: wkdys. 10-5 (Tues. in Nov.-Apr. 10-10), Sun. 2-5, hldys. 2-5 (closed July 4, Thns. Day, Xmas).

Art from Egyptian to modern times, including Far East. Emphasis on painting and sculpture. Classes, lectures, concerts, films. Professional art school.

The Great Seal of the United States

On July 4, 1776, the Continental Congress appointed a committee consisting of Benjamin Franklin, John Adams and Thomas Jefferson "to bring in a device for a seal of the United States of America." After many delays, a verbal description of a design by William Barton was finally approved by Congress on June 20, 1782. The seal shows an American bald eagle with a ribbon in its mouth bearing the

device *E pluribus unum* (One out of many). In its talons are the arrows of war and an olive branch of peace.

"In God We Trust"

"In God We Trust" first appeared on U.S. coins after April 22, 1864, when Congress passed an act authorizing the coinage of a 2-cent piece bearing this motto. Thereafter, Congress extended its use to other coins. On July 30, 1956, it became the national motto.

Principal Bills and Treaties Since 1900

PARTY ABBREVIATIONS

Dem.—Democratic
Rep.—RepublicanA.L.—American Labor
F.L.—Farmer-LaborInd.—Independent
Prog.—ProgressiveProh.—Prohibition
Soc.—Socialist

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Hay-Pauncefote Treaty. England agreed the U. S. can build and control an Isthmian canal open to all nations on equal terms (ratified Dec. 16, 1901).		No vote required		72	6	Nov. 18, 1901
Hay-Bunau-Varilla Treaty. Granted the U. S. a ten-mile strip in Panama in perpetuity for \$10,000,000 in gold and an annuity of \$250,000.	Dem. Rep.	No vote required		9 41	15 1	Mar. 19, 1903
Pure Food and Drug Act. Made shipments in interstate commerce of adulterated foods and drugs illegal.		240	17	63	4	June 30, 1906
Immigration Act. Barred paupers, anarchists, criminals and diseased persons.						Mar. 26, 1910
Glass-Owen Bill. Established a Federal Reserve system.		298	60	43	25	Dec. 23, 1913
Federal Trade Commission. Established to enforce anti-trust laws.		No roll-call vote		53	16	Sept. 26, 1914
Clayton Antitrust Act. Prohibited monopolistic price discrimination, restrictive sales or leases, intercorporate stock holding, interlocking directorates of competing companies capitalized at \$1,000,000 or more. Exempted labor from antitrust laws and declared peaceful picketing legal.		244	54	35	24	Oct. 15, 1914
Federal Farm Loan Act. Created system of land banks to lend money to farmers on their land and permanent improvements.		No roll-call vote		58	5	July 17, 1916
Keating-Owen Act. Forbade shipping in interstate commerce of goods produced by children. (Declared unconstitutional in 1918.)		337	46	52	12	Sept. 1, 1916
Adamson Act. Limited working hours of railroad employees to 8 per day on interstate railroads.		259	36	43	28	Sept. 3-5, 1916*
Burnett Immigration Bill. Required literacy test for immigrants.		308	87	64	7	Vetoed, Jan. 29, 1917
		285	(Reconsideration vote) 106	62	19	Feb. 5, 1917
Armed Neutrality Act. Allowed American vessels to be armed in war zones.		...	...	Filibustered		Defeated, Mar. 4, 1917
Declaration of War. Against Germany (World War I).		373	50	82	6	Apr. 6, 1917
National Prohibition Act (Volstead Act). Prohibited manufacture, transportation and sale of beverages containing more than .5 per cent alcohol.		321	70	Voice vote approval		Vetoed, Oct. 27, 1919
		176	(Reconsideration vote) 55	65	20	Oct. 28, 1919
Treaty of Versailles.	Dem. Rep.	No vote required		4 35	42 13	Defeated, Nov. 19, 1919
Treaty of Versailles.	Dem. Rep.	No vote required		21 28	23 12	Defeated, Mar. 19, 1920
Emergency Quota Act. Limited annual number of immigrants from any country to 3 per cent of that nationality living in U. S. in 1910. (Renewed in 1922 for two more years.)		No record vote		78	1	May 19, 1921
Federal Intermediate Credit Act. Lent money to farmers to extent of 75 per cent of value of harvested crops and livestock.		277	3	No record vote		Mar. 4, 1923

* As Sept. 3 was a Sunday, the bill was re-signed on the following Tuesday.

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Bonus Bill. Provided 20-year endowment policies for veterans.	Dem.	177	20	32	9	Vetoed, May 15, 1924
	Rep.	175	34	33	8	
	F.L.	1	...	2	..	
	Soc.	1	...	..	..
	Ind.	1	...	..	..
		(Reconsideration vote)				May 19, 1924
	Dem.	145	21	27	9	
	Rep.	166	57	30	17	
	F.L.	...	...	2	..
	Soc.	1	...	..	..
	Ind.	1	...	..	..
		308	58	69	9	May 26, 1924
Immigration Quota Law. Limited annual number of immigrants to 2 per cent of each country's residents in U. S. in 1890. After 1927, the number was to be limited annually to 150,000. Did not apply to nations of Western Hemisphere.						
World Court Membership.	Dem.	No vote required		36	2	Jan. 27, 1926
	Rep.			40	14	
	F.L.			..	1	
Kellogg-Briand Pact. Outlawed wars and prescribed arbitration of international disputes.		No vote required		85	1	Jan. 15, 1929
Agricultural Marketing Act. Created federal farm board with power to lend money to farm co-operatives and to create stabilization corporations to buy farm surplus and to store and sell abroad to maintain prices.	Dem.	121	32	33	2	June 15, 1929
	Rep.	245	2	21	32	
	F.L.	1	...	..	..
Hawley-Smoot Tariff. Very high protective tariff, averaging 40.08 per cent but giving President power to initiate reduction or increase in rates.	Dem.	14	132	5	30	June 17, 1930
	Rep.	208	20	39	11	
	F.L.	...	1	..	1	
War Debt Moratorium. Provided for moratorium on payment of interest and war debt installments by nations indebted to U. S.	Dem.	120	95	33	6	Dec. 23, 1931
	Rep.	196	5	36	6	
	F.L.	1	...	..	..
Reconstruction Finance Corporation. Established with a working fund of \$500,000,000 and power to borrow more to release frozen assets in banks and mortgage companies and to help bankrupt railroads.	Dem.	153	43	29	5	Jan. 22, 1932
	Rep.	182	12	34	3	
Norris-LaGuardia Act. Limited granting of injunctions against labor; required open testimony in open court and outlawed yellow dog contracts.		363	13	75	5	Mar. 23, 1932
3.2 Percent Liquor Law. Legalized manufacture and sale of 3.2 wines and beers.	Dem.	No record vote		33	19	Mar. 22, 1933
	Rep.			10	17	
Civilian Conservation Corps. Created to relieve unemployment and to work at reforestation, road building and flood control.		No roll-call vote		No roll-call vote		Mar. 31, 1933
Agricultural Adjustment Act. Created the AAA, which was authorized to limit acreage on specified crops at farmers' option and to pay benefits to farmers; money for this purpose to be raised by a process tax, which was declared unconstitutional Jan. 16, 1936.		315	98	52	31	May 12, 1933
Tennessee Valley Authority. Established to develop and sell electric power, to serve as yardstick for electricity rates, to develop rural electrification, to establish flood control, and to produce fertilizer.	Dem.	284	2	48	3	May 18, 1933
	Rep.	17	89	14	17	
	F.L.	5	...	1	..	
Federal Securities Act. Required that all stock and bond issues be registered and approved.		No roll-call vote		No roll-call vote		May 27, 1933
Home Owners Refinancing Act. Established the HOLC, which took over mortgages in exchange for bonds in order to save home owners from losing homes.		383	4	No record vote		June 13, 1933
Glass-Steagall Banking Act. Created Federal Deposit Insurance Corporation to insure deposits up to \$5000 (later \$10,000); required that private banks be either investment or deposit banks, but not both.		No record vote		No roll-call vote		June 16, 1933

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
National Industrial Recovery Act. Created NRA; authorized establishment of trade associations; suspended antitrust laws; authorized drawing-up of codes of Fair Competition to be accepted by President; guaranteed collective bargaining and required employers to accept approved maximum and minimum wage provisions. (Declared unconstitutional in 1935.)	Dem. Rep. F.L.	266 53 4	25 50 ...	46 10 1	4 20 ..	June 16, 1933
Gold Reserve Act. Gave President power to devalue gold and to impound for treasury all gold in Federal System and to establish Exchange Stabilization Fund.	Dem. Rep. F.L.	287 68 5	2 38 ...	55 10 1	1 22 ..	Jan. 30, 1934
Farm Mortgage Refinancing Act. Created Federal Farm Mortgage Corporation to assist farmers in payment of mortgages on easier interest terms.		No record vote		No record vote		Jan. 31, 1934
Tydings-McDuffie Act. Gave the Philippine Islands independence.	Dem. Rep. F.L.	No roll-call vote		51 16 1	.. 8 ..	Mar. 24, 1934
Securities and Exchange Act. Established Securities and Exchange Commission; required licensing of stock exchanges; made certain speculative practices illegal; gave Federal Reserve Board power to fix margins; required full financial statements from registered companies.	Dem. Rep. F.L.	254 22 4	11 73 ...	47 15 ..	1 12 ..	June 6, 1934
Trade Agreements Act. Authorized President to reduce tariffs by as much as 50 per cent of prevailing rates for those countries which granted the U. S. most favored nation treatment without the need for Senatorial ratification for three years.	Dem. Rep. F.L.	No record vote		51 5 1	5 28 ..	June 12, 1934
National Housing Act. Created Federal Housing Administration to administer funds for modernizing homes and for lending for new construction.		176	19	No record vote		June 28, 1934
Federal Farm Bankruptcy Act (Frazier-Lemke Act). Declared moratorium on farm mortgage foreclosures. (Declared unconstitutional in May, 1935.)		No record vote		60	16	June 28, 1934
World Court Ratification. (Defeated in Senate by lack of 2/3 majority vote.)	Dem. Rep. F.L. Prog.	No vote required		43 9	20 14 1 1	Defeated, Jan. 29, 1935
National Labor Relations Act (Wagner-Connery Act). Created the NLRB with power to determine appropriate collective bargaining unit subject to elections they supervised at request of the workers; to certify the duly chosen trade union and to take testimony about unfair employer practices and issue cease and desist orders.	Dem. Rep. F.L. Prog	No record vote		49 12 1 1	4 8	July 5, 1935
Social Security Act. Created social security board to administer old age benefits based on earnings before the age of 65; unemployment administered under state laws and grants to states to aid the needy aged, blind, orphans, widows, etc.		372	33	76	6	Aug. 14, 1935
Banking Act of 1935. Increased power of Federal Reserve Board of Governors over open market and credit transactions.		No record vote		No record vote		Aug. 23, 1935
Public Utilities Act (Wheeler-Rayburn Act). Required all public utilities to register with the SEC and limited utility holding corporations to first degree unless necessity required greater complexity.	Dem. Rep. F.L. Prog.	203 7 3 6	59 83	No record vote		Aug. 26, 1935
Farm Mortgage Moratorium Act. Allowed three-year moratorium on foreclosures with court permission upon payment of reasonable rental.		No record vote		No record vote		Aug. 29, 1935
Neutrality Act. Allowed President, for 6 months, to prohibit exports of arms, etc. (or their transportation by U. S. vessels) to belligerent countries.		211	83	79	2	Aug. 31, 1935

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Soldiers' Bonus Bill. Made 9-year 3-per cent bonds redeemable on demand.	Dem.	265	29	56	9	Vetoed, Jan. 24, 1936
	Rep.	72	30	15	7	
	F.L.	3	...	2	..	
	Prog.	6	...	1	..	
	(Reconsideration vote)					
	Dem.	248	32	57	12	Jan. 27, 1936
	Rep.	66	29	16	7	
	F.L.	3	...	2	..	
Prog.	7	...	1	..		
Soil Conservation and Domestic Allotment Act. Granted payments to farmers who let their land lie fallow or planted cover crops.	Dem.	246	25	49	9	Mar. 2, 1936
	Rep.	20	64	5	11	
	F.L.	1	1	1	..	
	Prog.	...	7	1	..	
Reciprocal Trade Agreement Act. Extended to June, 1940, period during which President is authorized to negotiate foreign trade under Trade Agreements Act of 1934.		284	0	58	24	Mar. 1, 1937
Neutrality Act. Forbade export of arms and ammunition to belligerents, the sale in this country of belligerents' securities, the use of American ships for carrying munitions; required belligerents to pay upon purchase and carry all purchases in their own ships (cash and carry clause).		377	12	41	15	May 1, 1937
Judiciary Act. Allowed voluntary retirement of Supreme Court justices and other federal court judges on full pension at age of 70.		No roll-call vote		Unanimous, no roll-call vote		Aug. 25, 1937
National Housing Act. Established the U. S. Housing Authority to administer loans to local communities and states for rural and urban construction. (Amended in 1938.)		275	86	64	16	Sept. 1, 1937
Agricultural Adjustment Act. Continued soil conservation program; provided parity payments and commodity loans to farmers; established crop insurance corporations and ever-normal granary plan.	Dem.	243	54	53	17	Feb. 16, 1938
	Rep.	14	74	2	11	
	F.L.	5	...	..	2
	Prog.	1	7	..	1	
	Ind.	...	...	1	..
Wage and Hours Act. Provided minimum wage of 25 cents to rise to 40 cents after 6 years; limited hours from 44 per week the first year to 40 after the third year; goods produced by "oppressive child labor" could not be shipped in interstate commerce.	Dem.	247	41	No record vote		June 25, 1938
	Rep.	31	48			
	F.L.	5	...			
	Prog.	7	...			
Alien Registration Act (Smith Act). Required fingerprinting of all aliens in U. S.; made it unlawful for anyone to advocate or teach overthrow of U. S. government or to belong to any group advocating such.		382	4	No record vote		June 28, 1940
Selective Service Act. Established system for compulsory service in armed forces. (Extended in 1941.)	Dem.	211	33	50	17	Sept. 16, 1940
	Rep.	52	112	8	10	
	F.L.	...	1	..	2	
	Prog.	...	2	..	1	
	Ind.	...	...	..	1
	A.L.	...	1	..	..
Lend-Lease. Provided system whereby U. S. lent goods and munitions to democratic nations in return for services and goods.		260	165	60	31	Mar. 11, 1941
Selective Service Act Extension. Extended period of service to not more than 30 months in time of peace and eliminated 900,000-man limit of Army.	Dem.	182	65	38	16	Aug. 18, 1941
	Rep.	21	133	7	13	
	Prog.	...	3	..	1	
	A.L.	...	1	..	..
Declarations of World War II: Against Japan.	Dem.	235	...	56	..	Dec. 8, 1941
	Rep.	149	1	24	..	
	Prog.	3	...	1	..	
	Ind.	...	...	1	..
	A.L.	1	...	..	..
Against Germany.		393	0	88	0	Dec. 11, 1941

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
U. N. Charter ratification. (For full text of Charter, see index.)	Dem. Rep. Prog.	No vote required		53 35 1	.. 2 ..	July 28, 1945
Case Bill. Would have set up mediation board, established enforceable 30-day cooling-off periods in labor disputes, outlawed boycotts and sympathy strikes, and authorized court injunctions.	Dem. Rep. Prog. A.L.	97 133	91 13 1 1	33 28	13 6 1 ..	Vetoed, June 11, 1946
(Defeated in House by lack of 2/3 majority to override veto.)		(Reconsideration vote)				
	Dem. Rep. Prog. A.L.	96 159	118 15 1 1	.. .. .. ..	.. .. .. ..	Defeated, June 11, 1946
British Loan Act. Established \$3,750,000,000 credit to Britain, including \$650,000,000 in lend-lease.	Dem. Rep. Prog. A.L.	157 61 ... 1	32 122 1 ...	29 17	15 18 1 ..	July 15, 1946
Atomic Energy Commission. Created five-man controlled commission without military representation but with military liaison; permitted Army and Navy to make atomic weapons; forbade distribution of fissionable materials or atomic energy information.		No record vote		No record vote		Aug. 1, 1946
Greek-Turkey Aid Bill. Authorized \$400,000,000 to furnish aid to Greece and Turkey upon application, subject to withdrawal upon request of countries, of the U. N. Security Council or General Assembly, or of President if improperly used or unnecessary.	Dem. Rep. A.L.	160 127 ...	13 93 1	32 35 ..	7 16 ..	May 22, 1947
Treaty Ratifications: With Italy.	Dem. Rep.	No vote required		37 42	3 7	June 14, 1947
With Rumania.		No vote required		Voice vote approval		June 14, 1947
With Bulgaria.		No vote required		Voice vote approval		June 14, 1947
With Hungary.		No vote required		Voice vote approval		June 14, 1947
Taft-Hartley Bill (Labor-Management Relations Act, 1947). Prohibited closed shops but allowed union shops by secret vote of majority of employees; made unions subject to damage suits for unfair labor practices, such as boycotts or jurisdictional strikes; required unions to file financial reports; required union leaders to file statements that they are not Communistic.	Dem. Rep. A.L. Dem. Rep. A.L.	103 217 ... 106 225 ...	66 12 1 71 11 1	17 37 .. 20 48 ..	15 2 .. 22 3 ..	Vetoed, June 20, 1947 June 23, 1947
Presidential Succession Act. Made Speaker of House and President of Senate pro tempore next in line after Vice President.		365	11	50	35	July 18, 1947
National Security Act of 1947. Reorganized and co-ordinated armed forces under National Military Establishment headed by Secretary of Defense (of Cabinet rank) and including Secretaries of the Army, the Navy and the Air Force.		Voice vote approval		Voice vote approval		July 26, 1947
Foreign Assistance Act of 1948. Authorized \$5.3 billion 1-year European Recovery Program, \$275 million for military aid to Greece and Turkey, \$463 million in economic and military aid for China, \$60 million for U. N. Fund for Children.	Dem. Rep. A.L.	150 167 0	11 62 2	Voice vote approval		Apr. 3, 1948
Selective Service Act. Provided for registration of all men 18-25 and induction of enough men 19-25 to maintain Army of 837,000, Navy and Marine Corps of 666,882, and Air Force of 502,000.		259	136	Voice vote approval		June 24, 1948
Displaced Persons Bill. Admitted 205,000 European displaced persons, including 3,000 orphans.		Voice vote approval		Voice vote approval		June 25, 1948
Foreign Aid Appropriations. Appropriated funds for 1 year: \$5.055 billion for ERP, \$400 million for China, \$1.3 billion for occupied areas, \$225 million for Greece and Turkey, \$35 million for U. N. Fund for Children, \$70,710,228 for IRO.		318	62	Voice vote approval		June 28, 1948

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Housing Bill. Authorized Federal loans for private construction of low-cost homes and apartments; liberalized loans to manufacturers of prefabricated houses.		351	9	Voice vote approval		Aug. 10, 1948
Bill to raise salaries: President's, \$75,000 to \$100,000 with new \$50,000 tax-free allowance; Vice President's and Speaker's, \$20,000 to \$30,000 with \$10,000 tax-free allowance.	Dem. Rep. A.L.	Voice vote approval		42 26	0 9	Jan. 19, 1949
ERP authorization: \$5,430,000,000 for European recovery, consisting of \$1,150,000,000 for April-June and \$4,280,000,000 for fiscal year starting July 1.		Voice vote approval		Voice vote approval		Apr. 19, 1949
Housing and slum-clearance bill. Provided for 810,000 dwelling units in 6 years, 5-year slum-clearance program, \$325,000,000 in loans and grants for farm housing aid.		Voice vote approval		Voice vote approval		July 15, 1949
North Atlantic Treaty. (For full text, consult index.)	Dem. Rep.	No vote required		50 32	2 11	July 21, 1949
National Security bill. Changed National Military Establishment to executive Department of Defense; made Departments of Army, Navy and Air Force "military departments."		356	7	Voice vote approval		Aug. 10, 1949
Military Assistance Program. Authorized \$1,314,010,000 in military aid: for Atlantic Pact countries, \$1 billion; Greece and Turkey, \$211,370,000; "general area" of China, \$75,000,000; and South Korea, Iran and Philippines, \$27,640,000.	Dem. Rep. A.L.	172 51 0	24 84 1	Voice vote approval		Oct. 28, 1949
Foreign-aid appropriations: \$5,809,990,000, consisting of \$4,852,380,000 for ERP, \$912,500,000 for Army-occupied areas, \$45,000,000 for Greek-Turkish aid, and \$110,000 for joint Congressional Foreign-Aid Committee.		Voice vote approval		Voice vote approval		Oct. 2, 1949
Minimum-wage bill. Raised minimum wage from 40c to 75c an hour.		131	19	Voice vote approval		Oct. 26, 1949
Farm bill. Supported prices for wheat, corn, cotton, rice, peanuts at 90% of parity through 1950, 80-90% through 1951, and 75-90% on sliding-scale basis thereafter.		175	34	46	7	Oct. 31, 1949
Natural-gas bill (Kerr bill). Would have prevented FPC control on prices for natural gas distributed by interstate pipelines.		176	174	44	38	Vetoed Apr. 15, 1950
Housing bill. Authorized over \$3.5 billion in government loans and mortgage insurance for expansion of housing program. Also turned over to state and local authorities about 150 wartime and veterans' housing projects.		Voice vote approval		Voice vote approval		Apr. 20, 1950
Bill to increase Air Force and Army. Expanded Air Force to 70 groups and from 410,000 to 502,000 men; expanded Army from 592,000 to 837,000 men.		315	4	76	0	July 11, 1950
Social Security bill. Will raise present employer's and employee's 1½% payroll tax to 2% in 1954, 2½% in 1960, 3% in 1965, and 3¼% in 1970; provided financial aid to permanently disabled persons in need.		374	1	Voice vote approval		Aug. 28, 1950
Omnibus appropriations bill. Appropriated \$35.554 billion, including \$62.5 million loan to Spain, \$14,680,084,443 for Defense Dept., \$1.225 billion for rearming Western Europe, \$2.526 billion for Marshall plan, \$26.9 million for Point-4 program.		Voice vote approval		Voice vote approval		Sept. 6, 1950
Defense Production Act of 1950. Gave President power to curb prices, wages, and consumer credit, and to increase defense production.		Voice vote approval		Voice vote approval		Sept. 8, 1950
Bill to draft doctors, dentists, etc., up to 50 years of age, for 21-mo. service.		Voice vote approval		Voice vote approval		Sept. 9, 1950

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Internal Security Act of 1950. Provided for registering of Communists and their internment in times of emergency.	Dem.	186	18	24	6	Vetoed
	Rep.	126	1	27	1	Sept. 22,
	A.L.	0	1	...	...	1950
			(Reconsideration vote)			
	Dem.	161	45	26	10	Sept. 23,
	Rep.	125	2	31	0	1950
	A.L.	0	1	...	...
Emergency defense-appropriations bill. Appropriated \$17,-099,902,285, including \$3.734 billion for Navy, \$3.166 billion for Army, \$260 million for atomic-weapon research, etc.		286	30	Voice vote approval		Sept. 27, 1950
Civil-defense bill. Provided \$3.1 billion to be supplemented by state and local governments for bomb shelters and other civil defense.		Voice vote approval		Voice vote approval		Jan. 12, 1951
GI insurance law. Provided free \$10,000 life insurance to all armed-forces personnel.		Voice vote approval		Voice vote approval		Apr. 25, 1951
Reciprocal Trade Agreements Act. Extended reciprocal trade agreement act to June 12, 1953, and directed President to end any concessions to Soviet bloc.		Voice vote approval		Voice vote approval		June 16, 1951
Draft act. Extended draft to July 1, 1955, and increased service to 24 months; provided preliminary study for universal military service.		339	41	Voice vote approval		June 19, 1951
Pension bill. Raised to \$120 a month the \$60-\$72 pensions to veterans disabled by nonservice disabilities.		Voice vote approval		Voice vote approval		Vetoed Aug. 6, 1951
			(Reconsideration vote)			Sept. 18, 1951
		318	45	69	9	
German peace resolution. Declared state of war with Germany ended.		376	0	Voice vote approval		Oct. 19, 1951
Taft-Hartley Law amendment. Permitted union-shop contracts without first polling employees.		307	18	Voice vote approval		Oct. 22, 1951
Atom-data bill. Authorized exchange of certain nonweapon atom data with friendly nations.		Voice vote approval		Voice vote approval		Oct. 30, 1951
Mutual Security Appropriation Bill. \$7,328,903,976 voted for global military and economic aid, including \$100 million for Spain.		Voice vote approval		Voice vote approval		Oct. 31, 1951
Japanese Peace Treaty. Formally ended state of war declared Dec. 8, 1941.		No vote required		66	10	Mar. 20, 1952
Tidelands Oil Bill. Gave clear title to states for submerged oil and other mineral deposits off their shores.		247	89	50	35	Vetoed, May 29, 1952
			(No reconsideration vote)			
McCarran-Walter Immigration and Nationality Act. Ended racial bars on immigration and retained quota system based on national origin.		205	53	Voice vote approval		Vetoed, June 25, 1952
			(Reconsideration vote)			
	Dem.	107	90	25	18	June 27,
	Rep.	170	23	32	8	1952
	Ind.	1	0	...	...
West German Peace Contracts. Established working basis for relations with Bonn Government.		No vote required		77	5	July 1, 1952
New Puerto Rican Constitution. Made Puerto Rico a commonwealth and gave it greater home rule.		Voice vote approval		Voice vote approval		July 3, 1952
Fair Trade Acts of 1952. Allowed manufacturers and retailers to set prices on trade-marked articles where state laws concur.		196	10	64	16	July 14, 1952
Korea "G.I. Bill of Rights." Granted Korean veterans with 90 days service as of June 27, 1950, rights and benefits similar to those received by veterans of World War II.		322	1	Voice vote approval		July 16, 1952

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Social Security Amendment. Increased Social Security benefits to aged by 12½% and authorized pensioners to earn up to \$75 a month. Minimum payments set at \$5 a month.		Voice vote approval		Voice vote approval		July 18, 1952
Tidelands Oil Law. Gave coastal states right to all minerals in submerged lands within their historic boundaries; Federal government retained control of remainder of continental shelf.	Dem. Rep. Ind.	97 188 0	59 18 1	Voice vote approval		May 22, 1953
Foreign-Aid Authorization Act. Provided \$4,531,507,000 for military and economic aid to 53 free countries.	Dem. Rep. Ind.	126 94 1	29 80 0	Voice vote approval		Aug. 7, 1953
Refugee Immigration Act. Admitted 214,000 refugees in next 3 years over immigration quotas.		190	44	Voice vote approval		Aug. 7, 1953
Statehood for Hawaii and Alaska. (Allowed to die in House.)	Rep. Dem. Ind.	... ... ...	... ... ...	3 42 1	41 2 0	Defeated, 1954
Bricker Amendment. Would have limited President's treaty-making power. (Defeated by lack of ⅔ majority vote.)	Rep. Dem. Ind.	... ... ...	... ... ...	32 28 0	16 14 1	Defeated, Feb. 25, 1954
Cut in excise tax by \$999 million a year.		395	1	72	8	Apr. 1, 1954
Authorization of St. Lawrence Seaway.	Rep. Dem. Ind.	144 96 1	64 94 0	Voice vote approval		May 13, 1954
Extension of Reciprocal Trade Act for 1 year.		Voice vote approval		Voice vote approval		July 1, 1954
Public-housing bill. Allowed 35,000 units for year, but limited housing to cities where Federal slum clearance had displaced families.		358	30	59	21	Aug. 2, 1954
Tax revision to cost \$1.363 million in revenue.	Rep. Dem. Ind.	201 114 0	3 73 1	42 19 0	3 22 1	Aug. 16, 1954
Communist Control Act. Outlawed Communist party, though membership in party was not made crime.		265	2	79	0	Aug. 24, 1954
Compromise Mutual Security Appropriation of \$5,243,575,-795, of which \$2,781,499,816 is "new money."		188	77	Voice vote approval		Aug. 26, 1954
Farm bill. Provided flexible price support.		208	47	44	28	Aug. 28, 1954
Amendment to Atomic Energy Act of 1946. Allowed private interests to enter field of atomic power.	Rep. Dem. Ind.	Voice vote approval		6 38 1	35 6 0	Aug. 30, 1954
Social Security benefits increased and extended to additional 10,000,000 persons.		Voice vote approval		Voice vote approval		Sept. 1, 1954
Death penalty for peacetime espionage		Voice vote approval		Voice vote approval		Sept. 3, 1954
Revocation of citizenship of persons convicted by conspiracy to overthrow government by force.		Voice vote approval		Voice vote approval		Sept. 3, 1954
Federal pay raise bill. Raised salaries of Senate and House members to \$22,500; Vice President and House Speaker to \$45,000; Justices of U. S. Supreme Court to \$35,000; etc.	Dem. Rep.	119 104	53 60	Voice vote approval		Mar. 2, 1955

Bill or treaty	Party	House vote		Senate vote		Date enacted
		Yea	Nay	Yea	Nay	
Military pay raise bill. Provided pay raise for armed services amounting to \$745 million per year.		Voice vote approval		Voice vote approval		Mar. 31, 1955
Postal pay raise bill. Increased pay of postal workers by average of 8%.		407	1	78	0	June 10, 1955
Selective Service bill. Extended draft 4 years and doctors' draft 2 years.		388	5	Voice vote approval		June 30, 1955
Funds for Dixon-Yates transmission line included in appropriations bill.		Voice vote approval		Voice vote approval ¹		Canceled, July 11, 1955 ²
Military reserves bill. Raised present 800,000-man reserve to 2,900,000 by mid-1959.	Dem. Rep.	169 146	38 40	Voice vote approval		Aug. 9, 1955
Housing bill. Authorized construction of 45,000 public-housing units by mid-1956.	Dem. Rep.	153 35	37 131	Voice vote approval		Aug. 11, 1955
Federal minimum-wage bill. Increased minimum from 75¢ to \$1 per hour.	Dem. Rep.	192 170	29 25	Voice vote approval		Aug. 12, 1955
Harris-Fulbright bill. Would have exempted natural-gas producers from direct Federal rate control.	Dem. Rep.	86 123	136 67	22 31	24 14	Vetoed, Feb. 17, 1956
		(No reconsideration vote)				
Upper Colorado River project bill. Authorized \$756 million for irrigation and reclamation in Upper Colorado River basin.		Voice vote approval		Voice vote approval		Apr. 11, 1956
Agricultural Act of 1956. Would have set up "soil bank" program and would have restored high rigid support prices.	Dem. Rep.	189 48	35 146	35 15	4 31	Vetoed, Apr. 15, 1956
(Defeated in House by lack of 2/3 majority vote to override veto.)	Dem. Rep.	182 20	38 173	...	...	Defeated, Apr. 18, 1956
		(Reconsideration vote)				
Authorization of \$1.2 billion "soil bank" program for paying farmers to withdraw acres from production.	Dem. Rep.	172 132	12 47	Voice vote approval		May 28, 1956
Highway bill. Called for expenditure of \$33.482 billion for road building (\$28.057 billion Federal expenditure and \$5.425 billion outlay by states).		Voice vote approval		89	1	June 29, 1956
National-defense bill. Appropriated \$34.6 billion for national defense, including \$16.5 billion for Air Force.		377	0	88	0	July 2, 1956
School bill. Would have provided \$1.6 billion in Federal aid for school construction.	Dem. Rep.	119 75	105 119	...	...	Defeated, July 5, 1956 ³
Foreign-aid authorization bill. Authorized \$4 billion for foreign-aid program for another year.		No record vote		No record vote		July 18, 1956
Social Security bill. Made women eligible for benefits at 62, totally disabled workers at 50.		Voice vote approval		Voice vote approval		Aug. 1, 1956
Housing bill. Provided for 70,000 new Federally subsidized housing units for next 2 years and liberalized Federal aid to private housing.		Voice vote approval		Voice vote approval		Aug. 7, 1956
Eisenhower Doctrine. Provided economic and military aid to Mideast nations.		350	60	73	19	Mar. 9, 1957
Housing bill. Permitted lower minimum down payments on government-insured housing: 3% on 1st \$10,000 of appraised value, 15% on next \$6,000, 30% on next \$4,000.		Voice vote approval		Voice vote approval		July 12, 1957
U.S. ratification of treaty of International Atomic Energy Agency (IAEA).	Dem. Rep.	No vote required		35 32	9 10	July 29, 1957
Bill authorizing New York State to build \$600-million, 1,800,000-kw power plant at Niagara Falls.		313	75	Voice vote approval		Aug. 21, 1957
Mutual security appropriations bill. Provided \$2,768,760,000 in new funds and \$667,050,000 in carry-over funds.		194	122	59	19	Sept. 3, 1957
Bill protecting FBI files from unrestricted use by defendant in criminal cases.		351	0	74	2	Sept. 3, 1957
Civil Rights Act of 1957. Created 6-member Civil Rights Commission; provided for additional Assistant Attorney General to head special Civil Rights section within Justice Department; barred interference with voting rights.	Dem. Rep.	128 151	82 15	23 37	15 0	Sept. 9, 1957

¹ Passed with added provisions and sent back to House. ² Dixon-Yates contract ordered canceled by President and funds dropped by Congress from appropriations bill. ³ Bill killed, since all money bills must originate in House.

NOTE: For bills and treaties enacted in 1958, see *News Record of 1958*.

How a Bill Becomes a Law

When a Senator or a Representative introduces a bill, he sends it to the clerk of his house, who gives it a number and title. This is the *first reading*, and the bill is referred to the proper committee.

The committee may decide the bill is unwise or unnecessary and *table* it, thus killing it at once. Or it may decide the bill is worthwhile and hold hearings to listen to facts and opinions presented by experts and other interested persons. After members of the committee have debated the bill and perhaps offered amendments, a vote is taken; and if the vote is favorable, the bill is sent back to the floor of the house.

The clerk reads the bill sentence by sentence to the house, and this is known as the *second reading*. Members may then debate the bill and offer amendments. In the House of Representatives, the time for debate is limited by a *cloture rule*, but there is no such restriction in the Senate except by a two-thirds vote for cloture. This makes possible a *filibuster*, in which one or more opponents hold the floor to defeat the bill.

The *third reading* is by title only, and the bill is put to a vote, which may be by voice or roll call, depending on the circumstances and parliamentary rules. Members who must be absent at the time but who wish to record

their vote may be paired if each negative vote has a balancing affirmative one.

The bill then goes to the other house of Congress, where it may be defeated, or passed with or without amendments. If the bill is defeated, it dies. If it is passed with amendments, a joint Congressional committee must be appointed by both houses to iron out the differences.

After its final passage by both houses, the bill is sent to the President. If he approves, he signs it, and the bill becomes a law. However, if he disapproves, he *veto*es the bill by refusing to sign it and sending it back to the house of origin with his reasons for the veto. The objections are read and debated, and a roll-call vote is taken. If the bill receives less than a two-thirds vote, it is defeated and goes no farther. But if it receives a two-thirds vote or greater, it is sent to the other house for a vote. If that house also passes it by a two-thirds vote, the President's veto is *overridden*, and the bill becomes a law.

Should the President desire neither to sign nor to veto the bill, he may retain it for ten days, Sundays excepted, after which time it automatically becomes a law without signature. However, if Congress has adjourned within those ten days, the bill is automatically killed, that process of indirect rejection being known as a *pocket veto*.

National Committee Chairmen Since 1921

Source: Republican and Democratic National Committees.

Chairman and (state)	Term	Chairman and (state)	Term
Republican		Republican (Contd.)	
John T. Adams (Iowa).....	1921-24	Leonard W. Hall (N. Y.).....	1953-57
William M. Butler (Mass.).....	1924-28	Hugh Meade Aicron, Jr. (Conn.).....	1957-
Hubert Work (Colo.).....	1928-29		
Claudius H. Huston (Tenn.).....	1929-30	Democratic	
Simeon D. Fess (Ohio).....	1930-32	Cordell Hull (Tenn.).....	1921-24
Everett Sanders (Ind.).....	1932-34	Clem Shaver (W. Va.).....	1924-28
Henry P. Fletcher (Pa.).....	1934-36	John J. Raskob (N. Y.).....	1928-32
John Hamilton (Kans.).....	1936-40	James A. Farley (N. Y.).....	1932-40
Joseph W. Martin, Jr. (Mass.).....	1940-42	Edward J. Flynn (N. Y.).....	1940-43
Harrison E. Spangler (Iowa).....	1942-44	Frank C. Walker (Mont.).....	1943-44
Herbert Brownell, Jr. (N. Y.).....	1944-46	Robert E. Hannegan (Mo.).....	1944-47
Carroll Reece (Tenn.).....	1946-48	J. Howard McGrath (R. I.).....	1947-49
Hugh D. Scott, Jr. (Pa.).....	1948-49	William M. Boyle, Jr. (Mo.).....	1949-51
Guy G. Gabrielson (N. J.).....	1949-52	Frank E. McKinney (Ind.).....	1951-52
Arthur E. Summerfield (Mich.).....	1952-53	Stephen A. Mitchell (Ill.).....	1952-54
C. Wesley Roberts (Kans.).....	1953-53	Paul M. Butler (Ind.).....	1955-

Republican National Committee: 1625 I St., Washington 6, D. C.
Democratic National Committee: 1001 Connecticut Ave., Washington 6, D. C.

The Confederate States of America

State	Seceded from Union	Readmitted to Union	State	Seceded from Union	Readmitted to Union
1. South Carolina....	Dec. 20, 1860	July 18, 1866	7. Texas.....	Mar. 2, 1861	Mar. 30, 1870
2. Mississippi.....	Jan. 9, 1861	Feb. 23, 1870	8. Virginia.....	Apr. 17, 1861	Jan. 27, 1870
3. Florida.....	Jan. 10, 1861	June 25, 1868	9. Arkansas.....	May 6, 1861	June 22, 1868
4. Alabama.....	Jan. 11, 1861	July 13, 1868	10. North Carolina....	May 20, 1861	July 20, 1868
5. Georgia.....	Jan. 19, 1861	July 15, 1870	11. Tennessee.....	June 24, 1861	July 24, 1866
6. Louisiana.....	Jan. 26, 1861	May 26, 1865			

NOTE: 4 other slave states—Delaware, Kentucky, Maryland and Missouri—remained in the Union.

Diplomatic Personnel To and From the U. S.

(As of Sept. 1958.) Source: U. S. Department of State.

Country	U. S. Representative to	Rank	Representative from	Rank
Afghanistan	Sheldon T. Mills	Amb.	Mohammed Hashim Maiwandwal	Amb.
Argentina	Willard L. Beaulac	Amb.	Dr. Cesar Barros Hurtado	Amb.
Australia	William J. Sebald	Amb.	Howard Beale	Amb.
Austria	H. Freeman Matthews	Amb.	Dr. Wilfried Platzer	Amb.
Belgium	John Clifford Folger	Amb.	Baron Silvercrux	Amb.
Bolivia	Philip W. Bonsal	Amb.	Don Victor Andrade	Amb.
Brazil	Ellis O. Briggs	Amb.	Ernani do Amaral Peixoto	Amb.
Bulgaria ¹				
Burma	Walter P. McConaughy	Amb.	U Win	Amb.
Cambodia	Carl W. Strom	Amb.	Nong Kimny	Amb.
Canada	Livingston T. Merchant	Amb.	N. A. Robertson	Amb.
Ceylon	Maxwell H. Gluck	Amb.	R. S. S. Gunewardene	Amb.
Chile	Walter Howe	Amb.	Mariano Puga	Amb.
China ²	Everett F. Drumright	Amb.	Dr. Hollington K. Tong	Amb.
Colombia	John M. Cabot	Amb.	Dr. José Gutiérrez-Gómez	Amb.
Costa Rica	Whiting Willauer	Amb.	Don Gonzalo J. Facio	Amb.
Cuba	Earl E. T. Smith	Amb.	Don Nicolás Arroyo	Amb.
Czechoslovakia	John M. Allison	Amb.	Dr. Karel Petřelka	Amb.
Denmark	Val Peterson	Amb.	Henrik de Kauffmann	Amb.
Dominican Republic	Joseph S. Farland	Amb.	Don Manuel A. de Moya	Amb.
Ecuador	Christian M. Ravndal	Amb.	Dr. José R. Chiriboga	Amb.
El Salvador	Thorsten V. Kalijarvi	Amb.	Dr. Don Héctor David Castro	Amb.
Estonia	Legation closed	....	Johannes Kalv ⁴	CG ⁶
Ethiopia	Don C. Bliss	Amb.	Yilma Deressa	Amb.
Finland	John D. Hickerson	Amb.	Johan A. Nykopp	Amb.
France	Amory Houghton	Amb.	Hervé Alphonand	Amb.
Germany	David K. E. Bruce	Amb.	Wilhelm G. Grewe	Amb.
Ghana	Wilson C. Flake	Amb.	D. A. Chapman	Amb.
Great Britain	John Hay Whitney	Amb.	Sir Harold Caccia	Amb.
Greece	James W. Riddleberger	Amb.	George V. Melas	Amb.
Guatemala	Lester D. Mallory	Amb.	Col. Carlos S. Antillón-Hernández	Amb.
Haiti	Gerald A. Drew	Amb.	Luc E. Fouché	Amb.
Honduras	Robert Newbegin	Amb.	Dr. Céleo Dávila	Amb.
Hungary	(vacant)	Min.	Dr. Péter Kós	Min.
Iceland	John J. Muccio	Amb.	Thor Thors	Amb.
India	Ellsworth Bunker ⁵	Amb.	Mahomed-Ali C. Chagea	Amb.
Indonesia	Howard P. Jones	Amb.	Moekarto Notowidigdo	Amb.
Iran	Edward T. Wailes	Amb.	Dr. Ali Gholi Ardalan	Amb.
Iraq	Waldemar J. Gallman	Amb.	Dr. Moussa Al-Shabandar	Amb.
Ireland	Scott McLeod	Amb.	John Joseph Hearne	Amb.
Israel	Edward B. Lawson	Amb.	Abba Eban	Amb.
Italy	James David Zellerbach	Amb.	Manlio Brosio	Amb.
Japan	Douglas MacArthur II	Amb.	Koichiro Asakai	Amb.
Jordan	(vacant)	Amb.	Dr. Yousuf Halkal	Amb.
Korea	Walter C. Dowling	Amb.	Dr. You Chan Yang	Amb.
Laos	Horace H. Smith	Amb.	Ourot R. Souvannavong	Amb.
Latvia	Legation closed	....	Dr. Arnolds Spekke	Min.
Lebanon	Robert McClintock	Amb.	Nadim Dimechkié	Amb.
Liberia	Richard Lee Jones	Amb.	George A. Padmore	Amb.
Libya	J. Wesley Jones	Amb.	Suleiman Jerbi	Amb.
Lithuania	Legation closed	....	Joseph Kajeckas	Cd'A
Luxemburg	Vinton Chapin	Amb.	Hugues Le Gallais	Amb.
Malaya	Homer M. Byington, Jr.	Amb.	Dr. Ismail bin Dato' Abdul Rahman	Amb.
Mexico	Robert C. Hill	Amb.	Don Manuel Tello	Amb.
Morocco	Charles W. Yost	Amb.	Dr. El-Mehdi Ben Aboud	Amb.
Nepal	Ellsworth Bunker ⁵	Amb.	Gen. Shanker Shamsheer Jang Bahadur Rana	Amb.
Netherlands	Philip Young	Amb.	Dr. J. H. van Roijen	Amb.
New Zealand	Francis H. Russell	Amb.	Sir Leslie Munro	Amb.
Nicaragua	Thomas E. Whelan	Amb.	Dr. Don Guillermo Sevilla-Sacasa	Amb.

Country	U. S. Representative to	Rank	Representative from	Rank
Norway	Frances E. Willis	Amb.	Paul Koht	Amb.
Pakistan	James M. Langley	Amb.	Mohammed Ali	Amb.
Panamá	Jullan F. Harrington	Amb.	Don Ricardo M. Arias E.	Amb.
Paraguay	Walter C. Floeser	Amb.	Dr. Don Osvaldo Chaves	Amb.
Peru	Theodore C. Achilles	Amb.	Don Fernando Berckmeyer	Amb.
Philippines	Charles E. Bohlen	Amb.	Gen. Carlos P. Romulo	Amb.
Poland	Jacob D. Beam	Amb.	Romuald Spasowski	Amb.
Portugal	James C. H. Bonbright	Amb.	Luis Esteves Fernandes	Amb.
Rumania	Clifton Wharton	Min.	Silviu Brucan	Min.
Saudi Arabia	Donald R. Heath ²	Amb.	Sheikh Adbullah Al-Khayyal	Amb.
Spain	John Lodge	Amb.	Don José M. de Areilza	Amb.
Sudan	James S. Moose, Jr.	Amb.	Dr. Ibrahim Anis	Amb.
Sweden	Francis White	Amb.	Erik Boheman	Amb.
Switzerland	Henry J. Taylor	Amb.	Henry de Torrenté	Amb.
Thailand	U. Alexis Johnson	Amb.	Thanat Khoman	Amb.
Tunisia	G. Lewis Jones, Jr.	Amb.	Mongi Slim	Amb.
Turkey	Fletcher Warren	Amb.	All S. H. Ürgüplü	Amb.
Un. of So. Africa ..	Henry A. Byroade	Amb.	W. C. du Plessis	Amb.
U.S.S.R.	Llewellyn E. Thompson	Amb.	Mikhail A. Menshikov	Amb.
United Arab Republic	Raymond A. Hare	Amb.	Dr. Ahmed Hussein	Amb.
Uruguay	Robert F. Woodward	Amb.	Julio A. Lacarte	Amb.
Venezuela	Edward J. Sparks	Amb.	Dr. Héctor Santaella	Amb.
Vietnam	Elbridge Durbrow	Amb.	Tran Van Chuong	Amb.
Yemen	Donald R. Heath ²	Min.	Assayed Ahmad Ali Zabarah	Cd'A
Yugoslavia	Karl L. Rankin	Amb.	Leo Mates	Amb.

¹ U. S. broke off diplomatic relations with Bulgaria on Feb. 20, 1950. ² Accredited to Saudi Arabia and Yemen; resident Jidda. ³ Formosa (Taiwan). ⁴ Legation in New York. ⁵ Accredited to India and Nepal; resident in New Delhi, India. ⁶ Acting. ⁷ Ad interim.

(Amb.—Ambassador; Min.—Minister; CG—Consul General; Cd'A—Chargé d'Affaires)

Assassinations and Attempts in U. S. Since 1865

CERMAK, Anton J. (Mayor of Chicago):

Shot Feb. 15, 1933, in Miami by Giuseppe Zangara, who attempted to assassinate Franklin D. Roosevelt; Cermak died Mar. 6.

GARFIELD, James A. (President of U. S.):

Shot July 2, 1881, in Washington, D. C., by Charles J. Guiteau; died Sept. 19.

LINCOLN, Abraham (President of U. S.):

Shot Apr. 14, 1865, in Washington, D. C., by John Wilkes Booth; died Apr. 15.

LONG, Huey P. (U. S. Senator from Louisiana):

Shot Sept. 8, 1935, in Baton Rouge by Dr. Carl A. Weiss; died Sept. 10.

McKINLEY, William (President of U. S.):

Shot Sept. 6, 1901, in Buffalo by Leon Czolgosz; died Sept. 14.

ROOSEVELT, Franklin D. (President-elect of U. S.):

Escaped assassination unhurt Feb. 15, 1933, in Miami. *See Cermak.*

ROOSEVELT, Theodore (ex-President of U. S.):

Escaped assassination (though shot) Oct. 14, 1912, in Milwaukee while campaigning for President.

SEWARD, William H. (Secretary of State):

Escaped assassination (though injured) Apr. 14, 1865, in Washington, D. C., by Lewis Powell (or Paine), accomplice of John Wilkes Booth.

TRUMAN, Harry S. (President of U. S.):

Escaped assassination unhurt Nov. 1, 1950, in Washington, D. C., as 2 Puerto Rican nationalists attempted to shoot their way into Blair House.

The Liberty Bell

The Liberty Bell was cast in England in 1752 for the Pennsylvania Statehouse (now Independence Hall). Damaged in transit, it was recast in Philadelphia in 1753. It is inscribed with the words, "Proclaim liberty throughout all the land unto all the inhabitants thereof" (Lev. 25:10). The bell was rung on July 8, 1776, for the first pub-

lic reading of the Declaration of Independence. Hidden in Allentown during the British occupation of Philadelphia, it was replaced in Independence Hall in 1778 where it remains today. The bell cracked on July 8, 1835, while tolling the death of Chief Justice John Marshall.

Members of the Supreme Court of the United States

Source: The Marshal, Supreme Court of the United States.

Name	Birth		Religious Affiliation <i>(Source: Library of Congress)</i>	Appointment		Oath Taken		Service Terminated				Death	
	Place	Date		From	President	Date	Age	Date	Cause	Years Served	Age	Date	Age
CHIEF JUSTICES													
John Jay	N. Y.	1745	Episcopal	N. Y.	Washington	1790	44	1795	resigned	5	49	1829	83
John Rutledge	S. C.	1739	Church of England	S. C.	Washington	1795	55	1795	rejected	0	56	1800	60
Oliver Ellsworth	Conn.	1745	Congregational	Conn.	Washington	1796	50	1800	resigned	4	55	1807	62
John Marshall	Va.	1755	Episcopal	Va.	J. Adams	1801	45	1835	death	34	79	1835	79
Roger B. Taney	Md.	1777	Roman Catholic	Md.	Jackson	1836	59	1864	death	28	87	1864	87
Salmon P. Chase	N. H.	1808	Episcopal	Ohio	Lincoln	1864	56	1873	death	8	65	1873	65
Morrison R. Waite	Conn.	1816	Episcopal	Ohio	Grant	1874	57	1888	death	14	71	1888	71
Melville W. Fuller	Maine	1833	Protestant	Ill.	Cleveland	1888	55	1910	death	21	77	1910	77
Edward D. White	La.	1845	Roman Catholic	La.	Taft	1910	65	1921	death	10	75	1921	75
William H. Taft	Ohio	1857	Unitarian	Conn.	Harding	1921	63	1930	retired	8	72	1930	72
Charles E. Hughes	N. Y.	1862	Baptist	N. Y.	Hoover	1930	67	1941	retired	11	79	1948	86
Harlan F. Stone	N. H.	1872	Episcopal	N. Y.	F. Roosevelt	1941	68	1946	death	4	73	1946	73
Frederick M. Vinson	Ky.	1890	Methodist	Ky.	Truman	1946	56	1953	death	7	63	1953	63
Earl Warren	Calif.	1891	Baptist	Calif.	Eisenhower	1953	62	....	.....	....	....	....	....
ASSOCIATE JUSTICES													
James Wilson	Scotland	1742	Episcopal	Pa.	Washington	1789	47	1798	death	8	55	1798	55
John Rutledge	S. C.	1739	Church of England	S. C.	Washington	1790	50	1791	resigned	1	51	1800	60
William Cushing	Mass.	1732	Unitarian	Mass.	Washington	1790	57	1810	death	20	78	1810	78
John Blair	Va.	1732	Presbyterian	Va.	Washington	1790	58	1796	resigned	5	64	1800	68
James Iredell	England	1751	Episcopal	N. C.	Washington	1790	38	1799	death	9	48	1799	48
Thomas Johnson	Md.	1732	Episcopal	Md.	Washington	1792	59	1793	resigned	0	60	1819	86
William Paterson	Ireland	1745	Presbyterian	N. J.	Washington	1793	47	1806	death	13	60	1806	60
Samuel Chase	Md.	1741	Episcopal	Md.	Washington	1796	54	1811	death	15	70	1811	70
Bushrod Washington	Va.	1762	Church of England	Va.	J. Adams	1799	36	1829	death	30	67	1829	67
Alfred Moore	N. C.	1755	Protestant	N. C.	J. Adams	1800	45	1804	resigned	3	48	1810	55
William Johnson	S. C.	1771	Presbyterian	S. C.	Jefferson	1804	32	1834	death	30	62	1834	62
Brockholst Livingston	N. Y.	1757	Presbyterian	N. Y.	Jefferson	1807	49	1823	death	16	65	1823	65
Thomas Todd	Va.	1765	Presbyterian	Ky.	Jefferson	1807	42	1826	death	18	61	1826	61
Gabriel Duval	Md.	1752	French Protestant	Md.	Madison	1811	58	1835	resigned	23	82	1844	91
Joseph Story	Mass.	1779	Calvinist	Mass.	Madison	1812	32	1845	death	33	65	1845	65
Smith Thompson	N. Y.	1768	Presbyterian	N. Y.	Monroe	1823	55	1843	death	20	75	1843	75
Robert Trimble	Va.	1777	Protestant	Ky.	J. Q. Adams	1826	49	1828	death	2	51	1828	51
John McLean	N. J.	1785	(?)	Ohio	Jackson	1830	44	1861	death	31	76	1861	76
Henry Baldwin	Conn.	1780	Not known	Pa.	Jackson	1830	50	1844	death	14	64	1844	64
James M. Wayne	Ga.	1790	Protestant	Ga.	Jackson	1835	45	1867	death	32	77	1867	77

Philip P. Barbour.....	Va.	1783	Episcopal	Va.	Jackson	1836	52	1841	death	4	57	1841	57
John Catron.....	Pa.	1786	Presbyterian	Tenn.	Van Buren	1837	51	1865	death	28	79	1865	79
John McKinley.....	Va.	1780	Protestant	Ala.	Van Buren	1838	57	1852	death	14	72	1852	72
Peter V. Daniel.....	Va.	1784	Protestant	Va.	Van Buren	1842	57	1860	death	18	76	1860	76
Samuel Nelson.....	N. Y.	1792	Protestant	N. Y.	Tyler	1845	52	1872	retired	27	80	1873	81
Levi Woodbury.....	N. H.	1789	Protestant	N. H.	Polk	1845	55	1851	death	5	61	1851	61
Robert C. Grier.....	Pa.	1794	Presbyterian	Pa.	Polk	1846	52	1870	retired	23	75	1870	76
Benjamin R. Curtis.....	Mass.	1809	(?)	Mass.	Fillmore	1851	41	1857	resigned	5	47	1874	64
John A. Campbell.....	Ga.	1811	Protestant	Ala.	Pierce	1853	41	1861	resigned	8	49	1889	77
Nathan Clifford.....	N. H.	1803	Protestant	Maine	Buchanan	1858	54	1881	death	23	77	1881	77
Noah H. Swayne.....	Va.	1804	Quaker	Ohio	Lincoln	1862	57	1881	retired	18	76	1884	79
Samuel F. Miller.....	Ky.	1816	Protestant	Iowa	Lincoln	1862	46	1890	death	28	74	1890	74
David Davis.....	Md.	1815	Episcopal	Ill.	Lincoln	1862	47	1877	resigned	14	61	1886	71
Stephen J. Field.....	Conn.	1816	Congregational	Calif.	Lincoln	1863	46	1897	retired	34	81	1899	82
William Strong.....	Conn.	1808	Presbyterian	Pa.	Grant	1870	61	1880	retired	10	72	1895	87
Joseph P. Bradley.....	N. Y.	1813	Protestant	N. J.	Grant	1870	57	1892	death	21	78	1892	78
Ward Hunt.....	N. Y.	1810	Episcopal	N. Y.	Grant	1873	62	1882	disabled	9	71	1886	75
John M. Harlan.....	Ky.	1833	Presbyterian	Ky.	Hayes	1877	44	1911	death	33	78	1911	78
William B. Woods.....	Ohio	1824	Protestant	Ga.	Hayes	1881	56	1887	death	6	62	1887	62
Stanley Matthews.....	Ohio	1824	Presbyterian	Ohio	Garfield	1881	56	1889	death	7	64	1889	64
Horace Gray.....	Mass.	1828	(?)	Mass.	Arthur	1882	53	1902	death	20	74	1902	74
Samuel Blatchford.....	N. Y.	1820	Presbyterian	N. Y.	Arthur	1882	62	1893	death	11	73	1893	73
Lucius Q. C. Lamar.....	Ga.	1825	Methodist	Miss.	Cleveland	1888	62	1893	death	5	67	1893	67
David J. Brewer.....	Asia Minor	1837	Protestant	Kans.	Harrison	1890	52	1910	death	20	72	1910	72
Henry B. Brown.....	Mass.	1836	Protestant	Mich.	Harrison	1891	54	1906	retired	15	70	1913	77
George Shiras, Jr.....	Pa.	1832	Protestant	Pa.	Harrison	1892	60	1903	retired	10	71	1924	92
Howell E. Jackson.....	Tenn.	1832	Baptist	Tenn.	Harrison	1893	60	1895	death	2	63	1895	63
Edward D. White.....	L.a.	1845	Roman Catholic	La.	Cleveland	1894	48	1910	promoted	16	65	1921	75
Rufus W. Peckham.....	N. Y.	1838	Episcopal	N. Y.	Cleveland	1896	57	1909	death	13	70	1909	70
Joseph McKenna.....	Pa.	1843	Roman Catholic	Calif.	McKinley	1898	54	1925	retired	26	81	1926	83
Oliver W. Holmes.....	Mass.	1841	Congregational	Mass.	T. Roosevelt	1902	61	1932	retired	29	90	1935	90
William R. Day.....	Ohio	1849	Protestant	Ohio	T. Roosevelt	1903	53	1922	retired	19	73	1923	74
William H. Moody.....	Mass.	1853	Protestant	Mass.	T. Roosevelt	1906	52	1910	death	3	56	1917	63
Horace H. Lurton.....	Ky.	1844	Episcopal	Tenn.	Taft	1910	65	1914	death	4	70	1914	70
Charles E. Hughes.....	N. Y.	1862	Baptist	N. Y.	Taft	1911	48	1916	resigned	5	54	1948	86
Willis Van Devanter.....	Ind.	1859	Episcopal	Wyo.	Taft	1911	51	1937	retired	26	78	1941	81
Joseph R. Lamar.....	Ga.	1857	Ch. of Disciples	Ga.	Taft	1911	53	1916	death	4	58	1916	58
Mahlon Pitney.....	N. J.	1858	Presbyterian	N. J.	Taft	1912	54	1922	disabled	10	64	1924	66
James C. McReynolds.....	Ky.	1862	Disciples of Christ	Tenn.	Wilson	1914	52	1941	retired	26	78	1946	84
Louis D. Brandeis.....	Ky.	1856	Hebrew	Mass.	Wilson	1916	59	1939	retired	22	82	1941	84
John H. Clarke.....	Ohio	1857	Protestant	Ohio	Wilson	1916	59	1922	resigned	5	65	1945	87
George Sutherland.....	England	1862	Protestant	Utah	Harding	1922	60	1938	retired	15	75	1942	80
Pierce Butler.....	Minn.	1866	Roman Catholic	Minn.	Harding	1923	56	1939	death	16	73	1939	73
Edward T. Sanford.....	Tenn.	1865	Episcopal	Tenn.	Harding	1923	57	1930	death	7	64	1930	64
Harlan F. Stone.....	N. H.	1872	Episcopal	N. Y.	Coolidge	1925	52	1941	promoted	16	68	1946	73
Owen J. Roberts.....	Pa.	1875	Episcopal	Pa.	Hoover	1930	55	1945	resigned	15	70	1955	80

Members of the Supreme Court of the United States (Contd.)

Name	Birth		Religious Affiliation (Source: Library of Congress)	Appointment		Oath Taken		Service Terminated			Death	
	Place	Date		From	President	Date	Age	Date	Cause	Years Served	Date	Age
Benjamin N. Cardozo.....	N. Y.	1870	Hebrew	N. Y.	Hoover	1932	61	1938	death	6	1938	68
Hugo L. Black.....	Ala.	1886	Baptist	Ala.	F. Roosevelt	1937	51	.....	.....	.....	.....	.....
Stanley F. Reed.....	Ky.	1884	Protestant	Ky.	F. Roosevelt	1938	53	1957	retired	19	.....	73
Felix Frankfurter.....	Austria	1882	Hebrew	Mass.	F. Roosevelt	1939	56	.....	.....	.....	.....	.....
William O. Douglas.....	Minn.	1898	Presbyterian	Conn.	F. Roosevelt	1939	40	.....	.....	.....	.....	.....
Frank Murphy.....	Mich.	1890	Roman Catholic	Conn.	F. Roosevelt	1940	49	.....	.....	.....	.....	.....
James F. Byrnes.....	S. C.	1879	Episcopal	Mich.	F. Roosevelt	1940	49	.....	death	9	1949	59
Robert H. Jackson.....	N. Y.	1892	Episcopal	S. C.	F. Roosevelt	1941	62	.....	resigned	1	.....	63
Wiley B. Rutledge.....	N. Y.	1894	Unitarian	N. Y.	F. Roosevelt	1941	49	1954	death	13	1954	62
Harold H. Burton.....	Mass.	1888	Unitarian	Iowa	F. Roosevelt	1943	48	1949	death	6	1949	55
Tom C. Clark.....	Tex.	1899	Presbyterian	Ohio	Truman	1945	57	.....	.....	.....	.....	.....
Sherman Minton.....	Ind.	1890	Protestant	Tex.	Truman	1949	49	.....	.....	.....	.....	.....
John M. Harlan.....	Ill.	1899	Presbyterian	Ind.	Truman	1949	58	1956	retired	7	.....	67
William J. Brennan, Jr.....	N. J.	1906	Roman Catholic	N. Y.	Eisenhower	1955	55	.....	.....	.....	.....	.....
Charles E. Whittaker.....	Kans.	1901	Methodist	N. J.	Eisenhower	1956	50	.....	.....	.....	.....	.....
				Mo.	Eisenhower	1957	56	.....	.....	.....	.....	.....

¹ Professing Christian. ² Unitarian, then Episcopal.
³ Unitarian or Congregational.

Impeachments

U. S. Constitution, Article I, Section 3.

The Senate shall have the sole power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and enjoy any Office of honor, Trust, or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Federal Impeachments

Source: Congressional Directory.

The Senate has sat as a court of impeachment in the following cases:

WILLIAM BLOUNT, Senator from Tennessee; charges dismissed for want of jurisdiction, January 14, 1799.

JOHN PICKENS, Judge of the U. S. District Court for New Hampshire; removed from office March 12, 1804.

SAMUEL CHASE, Associate Justice of the Supreme Court; acquitted March 1, 1805.

JAMES H. PECK, Judge of the U. S. District Court for Missouri; acquitted Jan. 31, 1831.

WEST H. HUMPHREYS, Judge of the United States District Court for the middle, eastern, and western districts of Tennessee; removed from office June 26, 1862.

ANDREW JOHNSON, President of the United States; acquitted May 26, 1868.

WILLIAM W. BELKNAP, Secretary of War; acquitted Aug. 1, 1876.

CHARLES SWAYNE, Judge of the United States District Court for the northern district of Florida; acquitted Feb. 27, 1905.

ROBERT W. ARCHBOLD, Associate Judge, United States Commerce Court; removed from office January 13, 1913.

GEORGE W. ENGLISH, Judge of the U. S. District Court for the eastern district of Illinois; resigned office November 4, 1926; impeachment proceedings dismissed.

HAROLD LOUDERBACK, Judge of the U. S. District Court for the northern district of California; acquitted May 24, 1933.

HALSTEN L. RITTER, Judge of the U. S. District Court for the southern district of Florida; removed April 17, 1936.

THE UNITED STATES ARMED SERVICES

U. S. MILITARY ACADEMY

Source: U. S. Military Academy.

Established in 1802 by an Act of Congress, the U. S. Military Academy is located on the west bank of the Hudson River some 50 miles north of New York City. Admission may be gained only by appointment to one of the 2,496 cadetships authorized by law. These cadetships are allocated among the following sources of nomination:

Noncompetitive:

Representatives (4 each)	1,740
Senators (4 each)	384
Other:	
Vice Presidential	3
Hawaii and Alaska	8
District of Columbia	6
Canal Zone Government ...	2
Puerto Rico	4

Competitive:

Army and Air Force:	
Regular components	90
Reserve components	90
Presidential	89
Sons of deceased veterans	40
Honor military & honor naval schools	40
Total	2,496

Graduation of the senior class normally leaves about 750 of these cadetships vacant and hence available to new candidates each year. Candidates may be nominated for these vacancies during the year preceding the admission date—the first Tuesday in July.

Candidates must be citizens of the U. S., of good moral character, have never been married, between the ages of 17 and 22, high school graduates and able to meet the mental, medical and physical aptitude requirements. A candidate's mental qualification for admission is determined by his performance on prescribed tests of the College Entrance Examination Board. The College Board tests which have been adopted by the Military Academy are—The Scholastic Aptitude Test and Achievement Tests in English Composition and Intermediate Mathematics. The particular College Board tests which a candidate must take to qualify for entrance to the Military Academy depend upon whether the candidate's nomination is competitive or non-competitive, and whether the applicant has completed satisfactorily at least one semester of study at college. Entrance requirements and procedures for appointment are described in the U. S. Military Academy Catalogue, available without charge from The Registrar, U. S. Military Academy, West Point, N. Y.

Cadets receive their entire education at Government expense and are paid \$111.15 per month. From this sum, they pay for their uniforms, textbooks, etc. Upon successful completion of the 4-year course, the graduate receives the degree of Bachelor of Science and is commissioned a second lieutenant in the regular Army.

U. S. NAVAL ACADEMY

Source: U. S. Naval Academy.

On October 10, 1845, the Naval School was established at Fort Severn, Annapolis, Maryland. Five years later it was renamed the United States Naval Academy, and the following year a regular four-year course was adopted. At present, the curriculum consists of courses in the following departments: executive; seamanship and navigation; ordnance and gunnery; marine engineering; aviation; electrical engineering; mathematics; English, history and government; foreign languages; hygiene; and physical education.

Candidates are selected as follows:

- 5 from the District of Columbia.
- 40 sons of men and women killed in action or who have died, or may hereafter die of wounds or injuries, or disease contracted, in active service in World Wars I and II and other periods.
- 75 annually from among sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard.
- 160 enlisted Navy and Marine personnel selected annually by competitive examination.
- 160 annually chosen by the Secretary of the Navy from the Naval and Marine Corps Reserves.
- 5 Puerto Ricans chosen by the Resident Commissioner of Puerto Rico.
- 1 on the recommendation of the Governor of Puerto Rico.
- 4 Filipinos designated by the President of the United States.
- 1 from the Canal Zone.
- 20 annually from schools designated by the Army and Navy as honor schools and from NROTC schools.
- 20 from the American republics and the Dominion of Canada.
- Unlimited: Sons of persons who have been or shall hereafter be awarded the Medal of Honor.

Each Senator, Representative, delegate to Congress, and the Vice President may have not more than 5 Midshipmen at the Naval Academy. The Board of Commissioners selects the 5 from the District of Columbia. The President selects the 40 sons of deceased veterans of World Wars and the 75 sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air

Force and Coast Guard. The President also appoints the sons of holders of the Medal of Honor.

Subject to the existence of vacancies and the availability of accommodations, the Secretary of the Navy may nominate for appointment a limited number of additional candidates. These must be recommended by the Academic Board from among the fully qualified, regularly nominated alternate and competitive candidates of the same year who were unable to enter because of the appointment of men preceding them in nomination.

Candidates for admission must be between 17 and 22 years of age on July 1 of their entering year. They may qualify by submitting acceptable scores on College Entrance Examination Board aptitude and achievement tests, or by presenting acceptable high school and college certificates. Details of the entrance requirements, scholastic and physical, may be obtained from the Naval Academy or from the Navy Department, Washington, 25, D.C. Candidates must also meet physical requirements and be unmarried.

Midshipmen are paid \$111.15 per month. Graduates of the Academy are granted Bachelor of Science degrees and are commissioned as ensigns in the Navy or second lieutenants in the Marine Corps.

U. S. COAST GUARD ACADEMY

Source: U. S. Coast Guard Academy.

The cadet system of the Coast Guard was established by law on July 31, 1876, when the "School of Instruction" for the Revenue Cutter Service, predecessor to the Coast Guard, was authorized.

The *J. C. Dobbin*, a converted schooner, served as the first schoolship, and was succeeded in 1878 by the bark *Chase*, a ship built for cadet training. First winter quarters were in a sail loft at New Bedford, Mass. The school was moved in 1900 to a two-story frame school at Curtis Bay, Md., to provide a more technical education; and in 1910 to Fort Trumbull, New London, Conn. In 1932 the Academy moved to its present site in the latter city.

The 4-year college-level curriculum leads to a Bachelor of Science degree and to a commission of ensign in the U. S. Coast Guard.

Cadets receive appointment to the Academy through a nation-wide competitive examination, held annually in February. Candidates must be between 17 and 22 years of age, physically sound, unmarried and at least 5' 4" tall. They must agree to remain unmarried until graduation and to serve at least 4 years on active duty. Cadets receive \$111.15 per month to cover their uniform and incidental expenses, and are furnished their rations and quarters. Applications for appointment may be made

to the Commandant (PTP), U. S. Coast Guard, Washington 25, D. C.

U. S. MERCHANT MARINE ACADEMY

Source: U. S. Merchant Marine Academy.

The U. S. Merchant Marine Cadet Corps was established Mar. 15, 1938, and its Academy is located on the south shore of Long Island Sound at Kings Point, N. Y.

The Academy has a complement of 900 cadets representing every U. S. state, D. C., Alaska, the Canal Zone, Hawaii, Puerto Rico, Guam, American Samoa and the Virgin Islands. In addition, it is authorized to admit for the full period of training not more than 12 candidates from Central and South American republics.

Competitive examinations are held annually among candidates nominated by Senators and members of the House of Representatives. Appointments to the Academy are governed by a state and territory quota system based on population. A candidate must be an unmarried citizen not less than 17 and not yet 22 years of age by July 1 of the year in which admission is sought. He must have 15 high-school credits, including 3 units in mathematics (from algebra, geometry and/or trigonometry), 1 unit in science (physics or chemistry) and 3 in English.

The course is 4 years, consisting of 1 year as Fourth Classman at the Academy, 1 year as Third Classman aboard a merchant ship, and 2 years as Second and First Classman at the Academy. Study includes marine engineering, navigation, electricity, ship construction, naval science and tactics, economics, business, languages, history, and other subjects.

On completion of their courses, cadets are examined for their original Merchant Marine license as deck or engineer officers in any ship in the U. S. Merchant Marine. They also receive Bachelor of Science degrees and commissions as officers in the U. S. Naval Reserve.

U. S. AIR FORCE ACADEMY

Source: U. S. Air Force Academy.

The bill establishing the Air Force Academy was signed by President Eisenhower on Apr. 1, 1954. The first class of 306 cadets was sworn in on July 11, 1955, at Lowry Air Force Base, Denver, Colo., the Academy's temporary location. The Cadet Wing moved into the Academy's permanent home north of Colorado Springs in Aug. 1958.

Eventually the Academy will have a complement of 2,520. Qualified sons of Medal of Honor winners will be admitted in addition to the number of vacancies.

Candidates must be citizens of the U. S., at least 17 but less than 22 on July 1 of the year for which they seek admission,

unmarried, at least 5' 4" and not more than 6' 4" tall and able to meet the mental and physical requirements. A candidate is required to take the following examinations and tests: (1) the Air Force Medical Examination for Flying Training; (2) the Air-Force Officer Qualifying Test; (3) the College Entrance Examination Board Tests; and (4) a physical examination.

Cadets receive their entire education at

Government expense and, in addition, are paid \$111.15 per month. From this sum, they pay for their uniforms, textbooks, etc. Upon completion of the 4-year course, leading to a bachelor's degree, a cadet who meets the physical qualifications is appointed a second lieutenant in the regular U. S. Air Force as a navigator, then receives full-scale pilot training if still physically qualified.

History of the Armed Services

Source: U. S. Department of Defense.

U. S. ARMY

When Gen. Washington, on July 3, 1775, took command of the colonial militia (about 8,000 men) besieging Boston, the event marked the union of the forces of the 13 separate colonies under one head, and the U. S. Army was born. In Jan. 1776, the Continental Congress decided that these troops should be separate in organization from those of local communities and established them as the U. S. Regular Army. When these forces were disbanded after the war, only some 80 officers and men were retained to guard U. S. Army stores. From this humble beginning, in the ensuing years, the strength of the U. S. Army rose or fell according to national and international conditions.

U. S. NAVY

In Sept. and Oct. 1775, Gen. Washington maintained 5 schooners and a sloop with officers and men from his army for the purpose of preying on inbound English supply vessels and thereby caused the birth of the U. S. Navy. In Dec. 1775, the Continental Congress expanded this by providing for construction of naval craft and the appointment of a marine committee (one member from each colony) which continued until 1794 when further ships and manpower were provided for by act of Congress. Upon completion of these ships in 1798, a Navy Department was established as the controlling agency, and the secretary given Cabinet rank.

U. S. AIR FORCE

Until creation of the National Military Establishment in September 1947, which united the services under one department, military aviation was a part of the U. S. Army. In the Army, aeronautical operations came under the Signal Corps from 1907 to 1918, when the U. S. Air Service was established. In 1926, the U. S. Air Corps came into being and remained until 1942, when the Army Air Forces succeeded it as the Army's air arm.

In the Navy, ship-based fighters and bombers are attached to the several fleets and are under the orders of the fleet commanders. Marine Corps aviation comes under control of the Navy.

In 1947, the U. S. Air Force was established as an independent military service under the National Military Establishment. At that time, the name U. S. Air Corps and the names of the services within the Army Air Forces were abolished.

U. S. COAST GUARD

Our country's oldest continuous seagoing service, the U. S. Coast Guard traces its history back to 1790 when the First Congress authorized the construction of ten vessels for the collection of revenue. Known first as the Revenue Marine, and later as the Revenue Cutter Service, the Coast Guard received its present name in 1915 under an act of Congress combining the Revenue Cutter Service with the Life-Saving Service. In 1939, the Lighthouse Service of the Department of Commerce was also consolidated with this unit. The Bureau of Marine Inspection and Navigation was transferred temporarily to the Coast Guard in 1942, permanently in 1946. Through its antecedents, the Coast Guard is one of the oldest organizations under the Federal government and, until the Navy Department was established in 1798, served as the only U. S. armed force afloat. In time of peace it operates under the Treasury Department, serving as the Nation's primary agency for promoting marine safety and enforcing Federal maritime laws. In time of war, or on direction of the President, it is attached to the Navy Department.

U. S. MARINE CORPS

Founded in 1775 and observing its official birthday on Nov. 10, the U. S. Marine Corps was developed to be able to serve to advantage on land or sea.

It has been used successfully in every U. S. war beginning with the Revolution, when it consisted of 2 battalions. It reached its high in achievement in World War II and in the Korean conflict when over 75% of its officers and men saw combat.

Selective Service Classifications

- I-A:** Available for military service.
I-A-O: Conscientious objector available for noncombatant military service only.
I-C: Member of Armed Forces, Coast and Geodetic Survey or Public Health Service.
I-D: Member of reserve component or student taking military training.
I-O: Conscientious objector available for civilian work contributing to maintenance of national health, safety or interest.
I-S: Student deferred by statute.
I-W: Conscientious objector performing civilian work contributing to maintenance of national health, safety or interest.
II-A: Registrant deferred because of civilian occupation (except agriculture and activity in study).

- II-C:** Registrant deferred because of agricultural occupation.
II-S: Registrant deferred because of activity in study.
III-A: Registrant with child or children; and registrant deferred by reason of extreme hardship to dependents.
IV-A: Registrant who has completed service; sole surviving son.
IV-B: Officials deferred by law.
IV-C: Aliens.
IV-D: Minister of a religion or a divinity student.
IV-F: Physically, mentally or morally unfit.
V-A: Registrant over age of liability for military service.

Highest Ranking Officers in the Armed Forces

ARMY

Generals of the Army: George C. Marshall; Douglas MacArthur; Omar N. Bradley.
Generals: Maxwell D. Taylor; Henry I. Hodes; Lyman L. Lemnitzer; Willard G. Wyman; Williston B. Palmer; Isaac D. White; Cortlandt Van Rensselaer Schuyler; George H. Decker.

AIR FORCE

Generals: Nathan F. Twining; Thomas D. White; Lauris Norstad; Curtis E. LeMay; Otto P. Weyland; Earle E. Partridge; Edwin W. Rawlings; Laurence S. Kuter; Leon W. Johnson; Thomas S. Power; Frank F. Everest.

NAVY

Fleet Admirals: William D. Leahy; Chester W. Nimitz.

Admirals: Arleigh A. Burke; Felix B. Stump; Jerauld Wright; Robert P. Briscoe; Walter F. Boone; Harry D. Felt; James L. Holloway, Jr.; Herbert G. Hopwood.

MARINE CORPS

General: Randolph McC. Pate.
Lieutenant Generals: Vernon E. Megee; Edwin A. Pollock; Merrill B. Twining; Verne J. McCaul; Robert E. Hogaboom.

COAST GUARD

Vice Admiral: Alfred C. Richmond, Commandant.
Rear Admiral: James A. Hirshfield, Assistant Commandant.

U. S. Military Actions Other Than Declared Wars

HAWAII (1893): U. S. Marines, ordered to land by U. S. Minister Stevens, aided the revolutionary Committee of Safety in overthrowing the native government. Stevens then proclaimed Hawaii a U. S. protectorate. Annexation, resisted by the Democratic regime in Washington, was not formally accomplished until 1898.

CHINA (1900): Boxers (a group of Chinese revolutionists) occupied Peking and laid siege to foreign legations. U. S. troops joined an international expedition which relieved the city.

PANAMÁ (1903): After Colombia had rejected a proposed agreement for relinquishing sovereignty over the Panama Canal Zone, revolution broke out, aided by promoters of the Panama Canal Co. Two U. S. warships were standing by to protect American privileges. The U. S. recognized the Republic of Panamá on Nov. 6.

DOMINICAN REPUBLIC (1904): When the Dominican Republic failed to meet debts owed to the U. S. and foreign creditors, Theodore Roosevelt declared the U. S. inten-

tion of exercising "international police power" in the Western Hemisphere whenever necessary. The U. S. accordingly administered customs and managed debt payments of the Dominican Republic from 1905-07.

NICARAGUA (1911): The possibility of foreign control over Nicaragua's canal route led to U. S. intervention and agreement. The U. S. landed Marines in Nicaragua (Aug. 14, 1912) to protect American interests there. A small detachment remained until 1933.

MEXICO (1914): Mexican Dictator Huerta, opposed by President Wilson, had the support of European governments. An incident involving unarmed U. S. sailors in Tampico led to the landing of U. S. forces on Mexican soil. Vera Cruz was bombarded by the Navy to prevent the landing of munitions from a German vessel. At the point of war, both powers agreed to mediation by Argentina, Brazil and Chile. Huerta abdicated, and Carranza succeeded to the presidency.

HAITI (1915): U. S. Marines imposed a military occupation. Haiti signed a treaty making it a virtual protectorate of the U. S. until troops were withdrawn in 1934.

MEXICO (1916): Raids by Pancho Villa cost American lives on both sides of the border. President Carranza consented to a punitive expedition lead by Gen. Pershing. Two silver bars
but antagonism grew in Mexico. Wilson

withdrew the U. S. force when war with Germany became imminent.

DOMINICAN REPUBLIC (1916): Renewed intervention in the Dominican Republic with internal administration by U. S. naval officers lasted until 1924.

Insignia and Ranks of the Armed Forces

Army, Air Force and Marines

Insignia	Rank
Five stars	General of the Army, Air Force
Four stars	General
Three stars	Lieutenant General
Two stars	Major General
One star	Brigadier General
Silver eagle	Colonel
Silver maple leaf	Lieutenant Colonel
Gold maple leaf	Major
Two silver bars	Captain
One silver bar	First Lieutenant
One gold bar	Second Lieutenant
Gold bar with rounded ends, brown-enamel top, longi- tudinal center of gold ($\frac{3}{8}$ " wide x 1" long)	Chief Warrant Officer, Com- missioned Warrant Officer (Marines)
Same as Chief Warrant Officer but with latitudinal center of gold	Warrant Officer (jg)

Navy and Coast Guard

Insignia	Rank	Stripes ¹
Five stars	Fleet Admiral	1—4—0
Four stars	Admiral	1—3—0
Three stars	Vice Admiral	1—2—0
Two stars	Rear Admiral	1—1—0
One star	Commodore	1—0—0 ²
Silver eagle	Captain	0—4—0
Silver maple leaf	Commander	0—3—0
Gold maple leaf	Lt. Commander	0—2—1
Two silver bars	Lieutenant	0—2—0
One silver bar	Lieutenant (jg)	0—1—1
One gold bar	Ensign	0—1—0
Warrant specialty in silver	Commissioned Warrant Officer	0—1—0 ³
Warrant specialty in gold	Warrant Officer	0—0—1 ³

¹ Of gold embroidery. First figure is number of 2-in. stripes; second is number of $\frac{1}{4}$ -in. stripes; third is number of $\frac{1}{8}$ -in. stripes. ² Wartime only. ³ Broken at 2-in. intervals with $\frac{1}{4}$ in. of blue.

Pay Grades of Enlisted Personnel

Source: Department of Defense, Public Information Office.

Army ranks ¹	Air Force ranks	Marine ranks	Navy ranks	Pay grades
Sergeant Major	.....	.....	.....	E-9
1st Sergeant & Master Sergeant	.....	.....	.....	E-8
Platoon Sergeant or Ser- geant 1st Class	Master Sergeant	Master Sergeant	Chief Petty Officer	E-7
Staff Sergeant	Technical Sergeant	Technical Sergeant	Petty Officer 1st Class	E-6
Sergeant	Staff Sergeant	Staff Sergeant	Petty Officer 2nd Class	E-5
Corporal	Airman 1st Class	Sergeant	Petty Officer 3rd Class	E-4
Private 1st Class	Airman 2nd Class	Marine Corporal	Navy Seaman	E-3
Private	Airman 3rd Class	Private 1st Class Marine	Seaman Apprentice	E-2
Recruit	Airman, Basic	Private	Seaman Recruit	E-1

¹ Army specialists are in the following pay grades: Specialist Nine (E-9); Specialist Eight (E-8); Specialist Seven (E-7); Specialist Six (E-6); Specialist Five (E-5); Specialist Four (E-4).

Monthly Salaries of Enlisted Personnel by Years of Service

E-9*—10-12 yrs service: \$380; 12-14 yrs: \$390; 14-16 yrs: \$400; 16-18 yrs: \$410; 18-20 yrs: \$420; 20-22 yrs: \$430; over 22 yrs: \$440.	yrs: \$245; 10-12 yrs: \$255; 12-14 yrs: \$265; 14-16 yrs: \$275; 16-18 yrs: \$280; over 18 yrs: \$290.
E-8*—8-10 yrs service: \$310; 10-12 yrs: \$320; 12-14 yrs: \$330; 14-16 yrs: \$340; 16-18 yrs: \$350; 18-20 yrs: \$360; 20-22 yrs: \$370; over 22 yrs: \$380.	E-5—Under 2 yrs service: \$145.24; 2-4 yrs: \$180; 4-6 yrs: \$205; 6-8 yrs: \$210; 8-10 yrs: \$220; over 10 yrs: \$240.
E-7—Under 2 yrs service: \$206.39; 2-4 yrs: \$236; 4-6 yrs: \$250; 6-8 yrs: \$260; 8-10 yrs: \$270; 10-12 yrs: \$285; 12-14 yrs: \$300; 14-16 yrs: \$310; 16-18 yrs: \$325; 18-20 yrs: \$340; over 20 yrs: \$350.	E-4—Under 2 yrs service: \$122.30; 2-3 yrs: \$150; 3-4 yrs: \$160; 4-6 yrs: \$170; 6-8 yrs: \$180; over 8 yrs: \$190.
E-6—Under 2 yrs service: \$175.81; 2-4 yrs: \$200; 4-6 yrs: \$225; 6-8 yrs: \$235; 8-10	E-3—Under 2 yrs service: \$99.37; 2-4 yrs: \$124; over 4 yrs: \$141.
	E-2—Under 2 yrs service: \$85.80; over 2 yrs: \$108.
	E-1—Under 4 mos service: \$78; 4 mos-2 yrs: \$83.20; over 2 yrs: \$105.

* An enlisted member may not be placed in pay grade E-8 or E-9 until he has completed at least 8 years or 10 years, respectively, of cumulative service creditable in the computation of his basic pay.

MONTHLY ALLOWANCE FOR QUARTERS: No dependents, \$51.30 for all pay grades; 1 dependent, \$51.30 for pay grades E-1 through E-3, \$77.10 for pay grades E-4 through E-9; 2 dependents, \$77.10 for all pay grades; over 2 dependents, \$96.90 for all pay grades.

Pay Grades of Commissioned Officers and Warrant Officers

Source: Department of Defense, Public Information Office.

Rank			Pay grade	Monthly allowances for quarters	
Army, Air Force and Marine Corps	Navy, Coast Guard and Coast and Geodetic Survey	Public Health Service		With dependents	With no dependents
General	Admiral	.....	O-10	\$171.00	\$136.80
Lieutenant General	Vice Admiral	.....	O-9	171.00	136.80
Major General	Rear Admiral (upper half)	Surgeon General; Deputy Surgeon General; Assistant Surgeon General having rank of Major General	O-8	171.00	136.80
Brigadier General	Rear Admiral (lower half) and Commodore	Assistant Surgeon General having rank of Brigadier General	O-7	171.00	136.80
Colonel	Captain	Director Grade	O-6	136.80	119.70
Lieutenant Colonel	Commander	Senior Grade	O-5	136.80	102.60
Major	Lieutenant Commander	Full Grade	O-4	119.70	94.20
Captain	Lieutenant	Senior Assistant Grade	O-3	102.60	85.50
First Lieutenant	Lieutenant (junior grade)	Assistant Grade	O-2	94.20	77.10
Second Lieutenant	Ensign	Junior Assistant Grade	O-1	85.50	68.40
Chief Warrant Officer	Chief Warrant Officer	.....	W-4	119.70	94.20
Chief Warrant Officer	Chief Warrant Officer	.....	W-3	120.60	85.50
Chief Warrant Officer	Chief Warrant Officer	.....	W-2	94.20	77.10
Warrant Officer	Warrant Officer	.....	W-1	85.50	68.40

Monthly Salaries of Officers by Years of Service

O-10*—Under 2 yrs service: \$1,200; 2-8 yrs: \$1,250; 8-12 yrs: \$1,300; 12-16 yrs: \$1,400; 16-20 yrs: \$1,500; 20-26 yrs: \$1,600; over 26 yrs: \$1,700.	O-3†—4-6 yrs service: \$415; 6-8 yrs: \$440; 8-10 yrs: \$460; 10-12 yrs: \$480; 12-14 yrs: \$510; over 14 yrs: \$535.
O-9—Under 2 yrs service: \$1,063.30; 2-3 yrs: \$1,100; 3-8 yrs: \$1,122; 8-12 yrs: \$1,150; 12-16 yrs: \$1,200; 16-20 yrs: \$1,300; 20-26 yrs: \$1,400; over 26 yrs: \$1,500.	O-2†—Under 2 yrs service: \$259.36; 2-3 yrs: \$291; 3-4 yrs: \$360; 4-6 yrs: \$370; over 6 yrs: \$380.
O-8—Under 2 yrs service: \$963.30; 2-3 yrs: \$1,000; 3-8 yrs: \$1,022; 8-12 yrs: \$1,100; 12-16 yrs: \$1,150; 16-18 yrs: \$1,200; 18-20 yrs: \$1,250; 20-22 yrs: \$1,300; over 22 yrs: \$1,350.	O-2†—4-6 yrs service: \$370; 6-8 yrs: \$380; 8-10 yrs: \$395; 10-12 yrs: \$415; 12-14 yrs: \$435; over 14 yrs: \$450.
O-7—Under 2 yrs service: \$860.28; 2-6 yrs: \$860; 6-10 yrs: \$900; 10-14 yrs: \$950; 14-16 yrs: \$1,000; 16-18 yrs: \$1,100; over 18 yrs: \$1,175.	O-1†—Under 2 yrs service: \$222.30; 2-3 yrs: \$251; over 3 yrs: \$314.
O-6—Under 2 yrs service: \$592.80; 2-3 yrs: \$628; 3-14 yrs: \$670; 14-16 yrs: \$690; 16-18 yrs: \$800; 18-20 yrs: \$840; 20-22 yrs: \$860; 22-26 yrs: \$910; over 26 yrs: \$985.	O-1†—4-6 yrs service: \$314; 6-8 yrs: \$335; 8-10 yrs: \$350; 10-12 yrs: \$365; 12-14 yrs: \$380; over 14 yrs: \$400.
O-5—Under 2 yrs service: \$474.24; 2-3 yrs: \$503; 3-10 yrs: \$540; 10-12 yrs: \$560; 12-14 yrs: \$590; 14-16 yrs: \$630; 16-18 yrs: \$680; 18-20 yrs: \$720; 20-22 yrs: \$745; over 22 yrs: \$775.	W-4—Under 2 yrs service: \$332.90; 2-4 yrs: \$376; 4-6 yrs: \$383; 6-8 yrs: \$399; 8-10 yrs: \$416; 10-12 yrs: \$435; 12-14 yrs: \$465; 14-16 yrs: \$486; 16-18 yrs: \$504; 18-20 yrs: \$516; 20-22 yrs: \$528; 22-24 yrs: \$543; 26-30 yrs: \$575; over 30 yrs: \$595.
O-4—Under 2 yrs service: \$400.14; 2-3 yrs: \$424; 3-6 yrs: \$455; 6-8 yrs: \$465; 9-10 yrs: \$485; 10-12 yrs: \$520; 12-14 yrs: \$550; 14-16 yrs: \$570; 16-18 yrs: \$610; over 18 yrs: \$630.	W-3—Under 2 yrs: \$302.64; 2-4 yrs: \$343; 4-6 yrs: \$348; 6-8 yrs: \$353; 8-10 yrs: \$380; 10-12 yrs: \$398; 12-14 yrs: \$412; 14-16 yrs: \$427; 16-18 yrs: \$441; 18-20 yrs: \$458; 20-22 yrs: \$470; 22-26 yrs: \$487; over 26 yrs: \$506.
O-3†—Under 2 yrs service: \$326.04; 2-3 yrs: \$346; 3-4 yrs: \$372; 4-6 yrs: \$415; 6-8 yrs: \$440; 8-10 yrs: \$460; 10-12 yrs: \$480; 12-14 yrs: \$510; over 14 yrs: \$525.	W-2—Under 2 yrs: \$264.82; 2-4 yrs: \$298; 4-6 yrs: \$307; 6-8 yrs: \$328; 8-10 yrs: \$342; 10-12 yrs: \$355; 12-14 yrs: \$369; 14-16 yrs: \$381; 16-18 yrs: \$393; 18-20 yrs: \$406; 20-22 yrs: \$417; over 22 yrs: \$440.
	W1—Under 2 yrs: \$219.42; 2-4 yrs: \$266; 4-6 yrs: \$285; 6-8 yrs: \$299; 8-10 yrs: \$313; 10-12 yrs: \$334; 12-14 yrs: \$345; 14-16 yrs: \$354; 16-18 yrs: \$364; 18-20 yrs: \$375; over 20 yrs: \$390.

* While serving as Chairman of Joint Chiefs of Staff, Chief of Staff of the Army, Chief of Naval Operations, Chief of Staff of the Air Force, or Commander of the Marine Corps, basic pay for this grade is \$1,875 regardless of cumulative years of service. † For commissioned officers who have not been credited with over 4 years' active service as enlisted member. ‡ For commissioned officers who have been credited with over 4 years' active service as an enlisted member.

Special Incentive Pay Rates

Members of the uniformed services are entitled to receive special pay for special kinds of duty. In addition to the incentive rates for aircraft and submarine crews listed

1. Frequent and regular aerial flights not as a crew member.
2. Parachute jumping as a part of military duty.
3. Duty involving exposure to lepers.
4. Duty involving demolition of explosives.
5. Submarine escape training tank duty.
6. Deep sea diving duty (including helium-oxygen diving).
7. Human acceleration or deceleration duty.
8. Low pressure chamber duty.

Medical and Dental Officers

Monthly incentive pay for medical and dental officers is based on cumulative service:

elsewhere in this section, the following types of hazardous duty receive flat rates of \$110 per month for officers and \$55 per month for enlisted personnel.

0-2 years, \$100; 2-6 years, \$150; 6-10 years, \$200; over 10 years, \$250.

Diving as in Salvage and Repair

The monthly rate is not less than \$5 or more than \$30, plus \$5 for each diving hour spent in salvage or repair operations. Pay applies to pay grades E-1 through E-9 only.

Sea and Foreign Duty

Pay grade	Monthly rate	Pay grade	Monthly rate
E-7, E-8, E-9.....	\$22.50	E-4.....	\$13.00
E-6.....	20.00	E-3.....	9.00
E-5.....	16.00	E-2, E-1.....	8.00

Proficiency Pay

An enlisted member designated as possessing special proficiency in a military skill may—

(1) Be advanced to any enlisted pay grade that is higher than his pay grade at the time of designation; or

(2) Be paid proficiency pay at a monthly rate not to exceed the following maximum rates for the proficiency rating to which he

is assigned: Rating P-1, \$50; P-2, \$100; P-3, \$150.

An enlisted member with less than 8 or 10, as the case may be, cumulative years of enlisted service for basic pay purposes, who is advanced to pay grade E-8 or E-9, respectively, is entitled to the minimum amount of pay prescribed for that pay grade until his cumulative years of service entitle him to a higher rate.

Special Pay for Certain Designated Officers

Officers in pay grades O-3 through O-6 who hold positions of unusual responsibility which are of a critical nature to the service concerned, may receive special pay, in addition to any other pay prescribed by law, at a monthly rate as follows: Pay grades O-3 and O-4, \$50; O-5, \$100; O-6, \$150.

tion to any other pay prescribed by law, at a monthly rate as follows: Pay grades O-3 and O-4, \$50; O-5, \$100; O-6, \$150.

Arlington Cemetery

Arlington National Cemetery occupies 408 acres in Virginia on the Potomac River directly opposite Washington. This land was part of the estate of John Parke Custis, Martha Washington's son, who built the mansion which later became the home of Robert E. Lee. In 1864 Arlington became a national military cemetery. Many thousands

of soldiers as well as hundreds of distinguished Americans are buried there. In 1921, an Unknown Soldier from World War I was buried in a temporary crypt in the cemetery; the completed tomb was dedicated in 1932. Two more Unknowns, one from World War II and one from the Korean War, were buried May 30, 1958, in adjacent crypts.

The American's Creed

By William Tyler Page

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies."

NOTE: William Tyler Page, Clerk of the U. S. House of Representatives, wrote "The American's Creed" in 1917. It was accepted by the House on behalf of the American people on April 3, 1918.

Incentive Pay for Hazardous Duty (As an Aircraft or Submarine Crew Member)

Pay grade	Under 2 yrs.	Over 2 yrs.	Over 3 yrs.	Over 4 yrs.	Over 6 yrs.	Over 8 yrs.	Over 10 yrs.
O-9, O-10.....	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00
O-8.....	155.00	155.00	165.00	165.00	165.00	165.00	165.00
O-7.....	150.00	150.00	160.00	160.00	160.00	160.00	160.00
O-6.....	200.00	200.00	215.00	215.00	215.00	215.00	215.00
O-5.....	190.00	190.00	205.00	205.00	205.00	205.00	205.00
O-4.....	170.00	170.00	185.00	185.00	185.00	195.00	210.00
O-3.....	145.00	145.00	155.00	165.00	180.00	185.00	190.00
O-2.....	115.00	125.00	150.00	150.00	160.00	165.00	170.00
O-1.....	100.00	105.00	135.00	135.00	140.00	145.00	155.00
W-4.....	115.00	115.00	115.00	115.00	120.00	125.00	135.00
W-3.....	110.00	115.00	115.00	115.00	120.00	120.00	125.00
W-2.....	105.00	110.00	110.00	110.00	115.00	120.00	125.00
W-1.....	100.00	105.00	105.00	105.00	110.00	120.00	125.00
E-8, E-9.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-7.....	80.00	85.00	85.00	85.00	90.00	95.00	100.00
E-6.....	70.00	75.00	75.00	80.00	85.00	90.00	95.00
E-5.....	60.00	70.00	70.00	80.00	80.00	85.00	90.00
E-4.....	55.00	65.00	65.00	70.00	75.00	80.00	80.00
E-3.....	55.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2.....	50.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1.....	50.00	55.00	55.00	55.00	55.00	55.00	55.00

Pay grade	Over 12 yrs.	Over 14 yrs.	Over 16 yrs.	Over 18 yrs.	Over 22 yrs.	Over 26 yrs.	Over 30 yrs.
O-9, O-10.....	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00	\$165.00
O-8.....	165.00	165.00	165.00	165.00	165.00	165.00	165.00
O-7.....	160.00	160.00	160.00	160.00	160.00	160.00	160.00
O-6.....	215.00	215.00	220.00	245.00	245.00	245.00	245.00
O-5.....	210.00	225.00	230.00	245.00	245.00	245.00	245.00
O-4.....	215.00	220.00	230.00	240.00	240.00	240.00	240.00
O-3.....	200.00	205.00	205.00	205.00	205.00	205.00	205.00
O-2.....	180.00	185.00	185.00	185.00	185.00	185.00	185.00
O-1.....	160.00	170.00	170.00	170.00	170.00	170.00	170.00
W-4.....	145.00	155.00	160.00	165.00	165.00	165.00	165.00
W-3.....	135.00	140.00	140.00	140.00	140.00	140.00	140.00
W-2.....	130.00	135.00	135.00	135.00	135.00	135.00	135.00
W-1.....	130.00	130.00	130.00	130.00	130.00	130.00	130.00
E-8, E-9.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-7.....	105.00	105.00	105.00	105.00	105.00	105.00	105.00
E-6.....	95.00	100.00	100.00	100.00	100.00	100.00	100.00
E-5.....	95.00	95.00	95.00	95.00	95.00	95.00	95.00
E-4.....	80.00	80.00	80.00	80.00	80.00	80.00	80.00
E-3.....	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-2.....	60.00	60.00	60.00	60.00	60.00	60.00	60.00
E-1.....	55.00	55.00	55.00	55.00	55.00	55.00	55.00

Extra Pay for Wartime Service

Act of March 3, 1847, during the Mexican War, provided for \$2 a month extra pay for "distinguished service." This continued in force beyond the war and applied in the Civil War.

In the Spanish American War, there was a 20 per cent increase of enlisted men's pay for war service.

In World War I, additional pay was offered for all types of services, usually as incentive for special qualifications as gun pointer, expert rifleman, etc. Among these items is pay for certificate of merit of \$2 a month. By the new law passed in 1920, the number of reasons for additional pay had expanded. Recipients of the Medal of Honor, Distinguished Service Cross and Distinguished Service Medal received \$2 a month extra, while each bar in lieu of these medals also

added another \$2 a month. Added to this was a foreign service bonus of 20 per cent.

Act of June 30, 1944 authorized compensation of \$5 a month to enlisted men qualified as expert infantrymen and \$10 to those qualified as combat infantrymen. These amounts were payable for the duration of war and six months thereafter.

By the Act of July 6, 1945 for the duration of war and for six months thereafter enlisted men entitled to wear Medical Badges received additional pay of \$10.

Act of July 10, 1952 authorized \$45 a month for each month beginning after May 31, 1950, for which the member was entitled to receive basic pay and during which he was a member of a combat unit in Korea. This applies to officers and enlisted men.

ALLOWANCES FOR SUBSISTENCE

Officers receive \$47.88 per month. Enlisted personnel receive allowances for subsistence under the following provisions: (1) when rations in kind are not available, \$2.57 per day; (2) when permission to mess separately is granted, \$1.05 per day; (3) when assigned to duty under emergency conditions where no government messing facilities are available, up to and not to exceed \$3.42 per day.

U. S. Navy Combatant Vessels

Type	Number
Carriers (CVA).....	15
Light carriers and carrier escorts.....	9
Cruisers.....	17
Destroyers and destroyer escorts.....	249
Submarines.....	110
Mine and patrol ships and auxiliaries.....	850
Total.....	1,250*

* Numbers are approximate; exact figures are classified information.

U. S. Casualties in Major Wars

Source: Department of Defense.

War	Branch of service	Numbers engaged	Battle deaths	Other deaths	Total deaths	Wounds not mortal	Total casualties ¹
Revolutionary War 1775 to 1783	Army	.....	4,044	.....	.....	6,004	.....
	Navy	.....	342	.....	.....	114	.....
	Marines	.....	49	.....	.....	70	.....
	Total	.....	4,435	.....	.....	6,188	.....
War of 1812 1812 to 1815	Army	.....	1,950	.....	.....	4,000	.....
	Navy	.....	265	.....	.....	439	.....
	Marines	.....	45	.....	.....	66	.....
	Total	286,730	2,260	.....	.....	4,505	.....
Mexican War 1846 to 1848	Army	.....	1,721	11,550	13,271	4,102	17,373
	Navy	.....	1	.....	.....	3	.....
	Marines	.....	11	.....	.....	47	.....
	Total	78,718	1,733	.....	.....	4,152	.....
Civil War ² 1861 to 1865	Army	2,128,948	138,154	221,374	359,528	280,040	639,568
	Navy	84,415	2,112	2,411	4,523	1,710	6,233
	Marines		148	312	460	131	591
	Total	2,213,363	140,414	224,097	364,511	281,881	646,392
Spanish-American War 1898	Army	280,564	369	2,061	2,430	1,594	4,024
	Navy	22,875	10	0	10	47	57
	Marines	3,321	6	0	6	21	27
	Total	306,760	385	2,061	2,446	1,662	4,108
World War I 1917 to 1918	Army	4,057,101	50,510	55,868	106,378	193,663	300,041
	Navy	599,051	431	6,856	7,287	819	8,106
	Marines	78,839	2,461	390	2,851	9,520	12,371
	Total	4,734,991	53,402	63,114	116,516	204,002	320,518
World War II 1941 to 1945	Army ³	11,260,000	234,874	83,400	318,274	565,861	884,135
	Navy	4,183,466	36,950	25,664	62,614	37,778	100,392
	Marines	669,100	19,733	4,778	24,511	67,207	91,718
	Total	16,112,566	291,557	113,842	405,399	670,846	1,076,245
Korean War 1950 to 1953	Army	2,834,000	27,704	9,429	37,133	77,596	114,729
	Navy	1,177,000	458	4,043	4,501	1,576	6,077
	Marines	424,000	4,267	1,261	5,528	23,744	29,272
	Air Force	1,285,000	1,200	5,884	7,084	368	7,452
	Total	5,720,000	33,629	20,617	54,246	103,284	157,530

¹ Excludes captured or interned and missing in action who were subsequently returned to military control. ² Union forces only. Totals should probably be somewhat larger as data on disposition of prisoners are far from complete. ³ Army data include Air Force. NOTE: All data are subject to revision. For wars before World War I, information represents best data from available records. However, due to incomplete records and possible differences in usage of terminology, reporting systems, etc., figures should be considered estimates. Leaders (.....) indicate that information is not available.

Casualties in World War II

(U. S. figures are to be found on p. 511)

Country	Men in war	Battle deaths	Other deaths	Wounded	Still missing
Australia	1,000,000	26,976	6,877	180,864	.....
Austria	800,000	280,000	24,000	350,117	.....
Belgium	625,000	8,460	40,564 ²	55,513 ³	.....
Brazil ⁴	40,334	943	32	4,222	.....
Bulgaria	339,760	6,671	.....	21,878	3,599
Canada	1,041,080	32,412	9,630	53,145	0
China ⁴	17,250,521	1,324,516	.....	1,762,006	130,154
Czechoslovakia	.....	6,683 ³	.....	8,017	.....
Denmark	.....	4,339	.....	.....	.....
Finland	500,000	79,047	1,961	50,000	6,000
France	.....	201,568	261,577	400,000	140,000
Germany	20,000,000	3,250,000 ³	3,350,000	7,250,000	1,300,000
Greece	.....	17,024	391,000 ⁵	47,290	.....
Hungary	.....	147,435	.....	89,313	125,556
India	2,393,891	32,121	5,360 ¹⁰	64,354	.....
Italy	3,100,000	149,496 ³	.....	66,716	135,070
Japan	9,700,000	1,270,000	620,000	140,000	85,000
Netherlands	280,000	6,500	429	2,860	87
New Zealand	194,000	11,625 ³	.....	17,000	46 ⁶
Norway	75,000	2,000	8,262	.....	0
Poland	.....	664,000	5,384,000	530,000	.....
Rumania	650,000 ⁷	350,000 ⁸	.....	.....	180,000
South Africa, Union of	410,056	2,473	9,607	.....	.....
U.S.S.R.	.....	6,115,000 ³	.....	14,012,000	.....
United Kingdom	5,896,000	357,116 ³	.....	369,267	46,079
Yugoslavia	3,741,000	305,000	1,401,000	425,000	.....

¹ Civilians only. ² Also 20,000 Jews and non-Belgians living in Belgium. ³ Deaths from all causes. ⁴ Figures cover period July 7, 1937–Sept. 2, 1945, and concern only Chinese regular troops. They do not include casualties suffered by guerrillas and local military corps. ⁵ Includes 261,000 dead of starvation. ⁶ As of Dec. 31, 1946. ⁷ Against Soviet Russia; 385,847 against Nazi Germany. ⁸ Against Soviet Russia; 169,822 against Nazi Germany. Figures include all deaths, wounded, and missing. ⁹ Army and Navy figures. ¹⁰ Does not include deaths due to diseases.

U. S. Armed Forces Personnel

Source: U. S. Department of Defense.

Year ¹	Army	Air Force ²	Navy	Marines	Men ³	Women	Coast Guard ⁴
1934	137,584	.....	92,312	16,361	245,299	958	9,985
1935	139,486	.....	95,053	17,260	250,864	935	10,303
1936	167,816	.....	106,292	17,248	290,403	953	9,545
1937	179,968	.....	113,617	18,223	310,804	1,004	10,066
1938	185,488	.....	119,088	18,356	321,834	1,098	9,968
1939	189,839	.....	125,202	19,432	333,363	1,110	10,064
1940	269,023	.....	160,997	28,345	456,984	1,381	13,621
1941	1,462,315	.....	284,427	54,359	1,794,997	6,104	19,036
1942	3,075,608	.....	640,570	142,613	3,831,571	27,220	58,998
1943	6,994,472	.....	1,741,750	308,523	8,915,248	129,497	154,976
1944	7,994,750	.....	2,981,365	475,604	11,229,682	222,037	169,264
1945	8,267,958	.....	3,380,817	474,680	11,923,250	200,205	171,518
1946	1,891,011	.....	983,398	155,679	2,984,096	45,992	29,736
1947	591,285	.....	498,661	93,053	1,564,717	18,282	18,972
1948	554,030	387,730	419,162	84,988	1,431,428	14,482	19,929
1949	660,473	419,347	449,575	85,965	1,597,280	18,080	23,326
1950	593,167	411,277	381,538	74,279	1,438,192	22,069	23,190
1951	1,531,774	788,381	736,680	192,620	3,589,978	39,625	29,000
1952	1,596,419	983,261	824,265	231,967	3,589,978	45,934	34,000
1953	1,533,815	977,593	794,440	249,219	3,509,582	45,485	34,148
1954	1,404,598	947,918	725,720	223,868	3,263,504	38,600	28,444
1955	1,109,296	959,946	660,695	205,170	2,899,916	35,191	28,500
1956	1,025,778	909,958	669,925	200,780	2,772,795	33,646	30,000
1957	997,994	919,835	677,408	200,861	2,763,625	32,173	28,322
1958	898,924 ⁵	871,156 ⁵	641,005 ⁵	189,495 ⁵	2,569,520 ⁷	30,850 ⁷	28,889 ⁶

¹ As of June 30. ² Before July 26, 1947, when the National Military Establishment was established, the Air Force was a part of the Army. ³ Not including men in the Coast Guard. ⁴ Source: U. S. Coast Guard. In peacetime, the Coast Guard operates under the Department of the Treasury; in time of war, however, it is attached to the Navy Department. ⁵ As of June 30, 1958. ⁶ As of June 1, 1958. ⁷ As of May 31, 1958.

Casualties in World War I

Source: Department of Defense.

(U. S. figures are to be found on p. 511)

	Total mobilized forces	Killed or died ¹	Wounded	Prisoners or missing	Total casualties
Austria-Hungary.....	7,800,000	1,200,000	3,620,000	2,200,000	7,020,000
Belgium.....	267,000	13,716	44,686	34,659	93,061
British Empire ²	8,904,467	908,371	2,090,212	191,652	3,190,235
Bulgaria.....	1,200,000	87,500	152,390	27,029	266,919
France ²	8,410,000	1,357,800	4,266,000	537,000	6,160,800
Germany.....	11,000,000	1,773,700	4,216,058	1,152,800	7,142,558
Greece.....	230,000	5,000	21,000	1,000	27,000
Italy.....	5,615,000	650,000	947,000	600,000	2,197,000
Japan.....	800,000	300	907	3	1,210
Montenegro.....	50,000	3,000	10,000	7,000	20,000
Portugal.....	100,000	7,222	13,751	12,318	33,291
Rumania.....	750,000	335,706	120,000	80,000	535,706
Russia.....	12,000,000	1,700,000	4,950,000	2,500,000	9,150,000
Serbia.....	707,343	45,000	133,148	152,958	331,106
Turkey.....	2,850,000	325,000	400,000	250,000	975,000

¹ Includes deaths from all causes. ² Official figures.

Veterans' Benefits

Although programs of benefits of various kinds have a history tracing back to Colonial days, veterans of World War I were the first to receive disability compensation for injuries, allotments for the support of dependents, life insurance, complete medical care and vocational rehabilitation. Beginning with 1940, these benefits were slowly broadened.

The following benefits available to veterans of World War II and the Korean War have specific time limitations and, in most cases, are applicable only to those whose discharge was not under dishonorable conditions.

Education and Training: *Veterans of the Korean War:* For a maximum period of 1½ times the duration of active service, not exceeding 36 months, the VA pays sums varying from \$110 to \$160 per month toward subsistence, tuition, supplies, etc.

Re-employment: The veteran is to be reinstated in the same position or an equivalent one unless, in the case of a private employer, changed circumstances make this impossible.

Unemployment allowances: Korea veterans out of work are entitled to unemployment allowances of \$26 a week for up to 26 weeks. Application should be made to the local state employment office.

Loans: Only loans for the purchase or construction of a home, to buy a farm and farm equipment or business property and equipment, are permissible. The VA will guarantee the lender against loss up to 60% of a home loan with a maximum of \$7,500. On other loans, the guarantee is up to 50% with a maximum of \$4,000 involving real estate and \$2,000 on non-real

estate loans. The interest rate in all cases must not exceed 4¾% per year.

The following benefits are also available to those having some service-connected illness or disability:

Disability Compensation: The VA pays from \$19 to \$225 per month with additional sums for specific conditions up to \$450 per month, plus allowances for wife, children or dependent parents.

Vocational rehabilitation: Necessary training expenses, special equipment, etc., toward a definite job objective are paid for, plus a monthly allowance varying from \$65 to \$120 in addition to compensation.

Medical and dental care: This includes complete care in VA or certain other Federal hospitals. It also covers treatment (not requiring hospitalization) at a VA field station or by an approved private physician or dentist. Medicine, instruments, appliances, mechanical equipment, etc., are supplied. Full domiciliary care is also provided where necessary.

War Orphans Education: \$110 a month for up to 36 months of schooling may be paid to sons and daughters of veterans who died of service-connected causes. Students must usually be between 18 and 23.

Death benefits: Up to \$10,000 of GI Insurance may be paid to the beneficiaries of deceased veterans. Compensation to a widow is \$87 per month, with an allowance for each child.

NOTE: Since our space has permitted only a general statement of the principal benefits available to veterans, the reader is referred to his local office of the Veterans Administration (VA) for detailed information.

U. S. Postal Regulations

Source: U. S. Post Office.

FIRST CLASS:

Letters and written and sealed matter: 4¢ for each oz., except that drop letters are subject to 3¢ for each oz. when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government postal cards: single, 3¢; double, 6¢.

Private mailing or post cards: 3¢.

Limit of size: Min. size, $2\frac{3}{4}$ " x 4"; max. 3-9/16" x 5-9/16".

Limit of weight when mailed from one first-class post office to another: 40 lb. in local, first and second zones, 20 lb. in third to eighth zones.

Limit of weight when mailed to or from second-, third- and fourth-class post offices: 70 lb.

AIRMAIL (LIMIT 8 OZ.):

7¢ for each oz. or fraction thereof within the continental U. S., within any Territory or possession of the U. S., or between any of the foregoing. This includes airmail to or from Alaska, Hawaii, Puerto Rico, Virgin Islands of the U. S., Canton Island, Canal Zone, Guam and any other place where the U. S. mail service is in operation.

Post cards: 5¢.

AIR PARCEL POST (OVER 8 OZ. TO 70 LB.):

The zone rates below shall apply to mailable matter of any class carried by air. Such matter shall not exceed 100 in. in length and girth combined, including written and other matter of the first class, whether sealed or unsealed. Fractions of a lb. are charged as a full lb.

Parcels weighing less than 10 lb. and measuring more than 84 in., but not more than 100 in. in length and girth combined, shall be subject to the 10-lb. rate.

Air Parcel-Post Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
First, Second & Third (to 300)	60¢	48¢
Fourth (300-600)	65¢	50¢
Fifth (600-1,000)	70¢	56¢
Sixth (1,000-1,400)	75¢	64¢
Seventh (1,400-1,800)	75¢	72¢
Eighth (over 1,800)	80¢	80¢

The eighth-zone rate shall be charged on air parcel post between the U. S. or its Territories and possessions and overseas A.P.O.'s and Fleet post offices, as well as naval vessels and commands afloat addressed in care of Fleet post offices at New York or San Francisco.

For restrictions to certain A.P.O.'s and F.P.O.'s, consult local post office.

Limit of size to A.P.O. or F.P.O.: 100 in. length and girth; limit of weight: 70 lb.

Air parcels mailed at New York, N. Y., and addressed to Puerto Rico and the Virgin Is. are subject to the seventh-zone rate.

SECOND CLASS (NO WEIGHT LIMIT):

Newspapers, magazines and other periodicals containing notice of second-class entry.

For rates for publications mailed by the publishers or registered news agents, consult local postmaster.

Transient rate for matter mailed by others than the publishers or registered news agents: 2¢ for the first 2 oz., 1¢ for each additional oz. However, if the fourth-class rate is cheaper, it shall apply.

THIRD CLASS (UNDER 16 OZ.):*

Merchandise, books, printed matter and all other mailable matter not in first or second class.

Regular rate: 3¢ for the first 2 oz., $1\frac{1}{2}$ ¢ for each additional oz.

Bulk rate: for \$20† per year or fraction thereof, separately addressed identical pieces of third-class matter in quantities of not less than 20 lb. or of not less than 200 pieces are subject to the lb. rates of postage applicable to the entire bulk mailed at one time.

The bulk rate for miscellaneous printed matter, etc. is 16¢† for each lb., with a minimum charge of 2¢† per piece. For books and catalogs of 24 pages or more, seeds, etc., the rate is 10¢ for each lb., with a minimum charge of 2¢† per piece.

Pieces of such size or form as to prevent ready facing and tying in bundles and requiring individual distributing throughout mailed singly or in bulk are subject to a minimum charge of 6¢ each.

FOURTH CLASS (PARCEL POST) (OVER 8 OZ.):

Merchandise, books, printed matter and all other mailable matter not in first, second or third classes.

The zone rates below shall apply to fourth-class matter, except catalogs, books, library books, publications or records for the blind, and certain controlled circulation publications.

Limit of size§: 72 in. in length and girth combined.

Limit of weight§: over 8 oz. to 40 lb. in local, first and second zones, over 8 oz. to 20 lb. in third to eighth zones.

Note: The following five items have a size limit of 100 in. in length and girth combined, a weight limit of over 8 oz. to 70 lb.: (1) parcels sent to or from rural or star routes; (2) parcels sent to or from

* Regular piece and pound rates will apply after Jan. 1, 1959, to matter sent by certain nonprofit organizations, except that the per piece minimum under bulk mailings will be 50% of the regular minimum rate. † Effective Jan. 1, 1959. ‡ Effective Jan. 1, 1959; to be raised to 2½¢ on July 1, 1960. § When mailed from one first-class post office to another.

second-, third-, and fourth-class post offices; (3) parcels containing baby fowl, live plants, trees, shrubs, or agricultural commodities (not including manufactured products thereof); (4) parcels containing books; (5) parcels mailed between the U. S. and any Army or Fleet post office or between the U. S. and any Territory or possession of the U. S.

Fourth-Class Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
Local	\$.18	\$.0145
First & Second (to 150) *	.23	.0395
Third (150-300)	.23	.0515
Fourth (300-600)	.24	.0690
Fifth (600-1,000)	.26	.0925
Sixth (1,000-1,400)	.28	.1195
Seventh (1,400-1,800)	.30	.1520
Eighth (over 1,800)	.32	.1805

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

The zone rates below shall apply to individually addressed catalogs and similar printed advertising matter in bound form weighing more than 8 oz. but not exceeding 10 lb.

Catalog Zone Rates*

Zone and (miles)	First lb.	Addl. half-lbs.
Local	\$.12	\$.0075
First & Second (to 150)†	.13	.0150
Third (150-300)	.14	.0200
Fourth (300-600)	.15	.0250
Fifth (600-1,000)	.17	.0325
Sixth (1,000-1,400)	.18	.0400
Seventh (1,400-1,800)	.19	.0500
Eighth (over 1,800)	.20	.0600

* Fractions of one-half cent or less are counted as one-half cent; fractions of a cent exceeding one-half cent are counted as one cent in the total amount.

† In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

BOOKS (LIMIT 70 LB.):

Books (containing no advertising matter other than incidental announcements of books), 16-mm. film in final state for viewing, 16-mm. film catalogs, school test materials, printed music (in bound or sheet form), phonograph recordings, and manuscripts for books, periodical articles and music, 9¢ first lb., 5¢ each additional lb. (Rate applies for films and catalogs except when mailed to commercial theaters.) Must be endorsed "Educational Material."

LIBRARY BOOKS (LIMIT 70 LB.):

Books sent by authorized libraries to readers and when returned by such readers, 4¢ first lb., 1¢ each additional lb. Rate also applies to printed music (in bound or sheet form), bound volumes of academic theses, phonograph recordings and other library materials.

SPECIAL DELIVERY AND SPECIAL HANDLING:

The prepayment of the special-delivery

fee entitles mail to the most expeditious handling and special delivery.

Prepayment of the special-handling fee entitles fourth-class matter to the most expeditious handling, transportation and delivery possible, but not special delivery.

Special Delivery and Special Handling

Weight	Special delivery		Special handling (4th class only)
	First class*	2nd, 3rd, 4th class	
Up to 2 lb.	30¢	45¢	25¢
2 to 10 lb.	45¢	55¢	35¢
Over 10 lb.	60¢	70¢	50¢

* Including air parcel post.

MONEY ORDERS:

Money orders for amounts from 1¢ to \$100 are issued upon written application* made by the remitter or his agent showing the amount of the order and the names and addresses of payee and remitter.

Amount of order	Fee
\$.01 to \$ 5.00	.15¢
5.01 to 10.00	.20¢
10.01 to 100.00	.30¢

* As of Oct. 1, 1955, 1st- and 2nd-class post offices will issue money orders without written application.

REGISTERED MAIL:

Fees for domestic registered mail (first-, second- and third-class matter, and sealed fourth-class matter on which postage at the first-class rate has been paid):

Declared value (must be full value)	Fee if mailer has no commercial or other insurance	Fee if mailer has commercial or other insurance
\$ 0.00 to \$ 10.00	\$.50 ¹	\$.50 ²
10.01 to 100.00	.75 ¹	.75 ²
100.01 to 200.00	1.00 ¹	1.00 ²
200.01 to 400.00	1.25 ¹	1.25 ²
400.01 to 600.00	1.50 ¹	1.50 ²
600.01 to 800.00	1.75 ¹	1.75 ²
800.01 to 1,000.00	2.00 ¹	2.00 ²
1,000.01 to 2,000.00	2.25 ¹	2.15 ²
2,000.01 to 3,000.00	2.50 ¹	2.30 ²
3,000.01 to 4,000.00	2.75 ¹	2.45 ²
4,000.01 to 5,000.00	3.00 ¹	2.60 ²
5,000.01 to 6,000.00	3.25 ¹	2.75 ²
6,000.01 to 7,000.00	3.50 ¹	2.90 ²
7,000.01 to 8,000.00	3.75 ¹	3.05 ²
8,000.01 to 9,000.00	4.00 ¹	3.20 ²
9,000.01 to 10,000.00	4.25 ¹	3.35 ²
10,000.01 to 1,000,000.00	4.25+ ^{4,5}	3.35+ ^{4,5}
1,000,000.01 to 15,000,000.00	152.75+ ^{4,5}	151.85+ ^{4,5}
Over 15,000,000.00	(4 ¹)	(5 ²)

¹ Postal liability: declared value. ² Postal liability: Declared value or prorated. ³ Postal liability: \$1,000 maximum or prorated. ⁴ Postal liability: \$10,000. ⁵ Fee increased 15 cents per \$1,000 or fraction above \$10,000. ⁶ Fee increased 10 cents per \$1,000 or fraction above \$10,000. ⁷ Additional fee charges may be applied based on consideration of weight, space and value.

Restricted delivery, 50¢. Return receipts: showing to whom and when delivered, 10¢; to whom, when and address where delivered, 35¢; requested after mailing, showing to whom and when delivered, 25¢.

CERTIFIED MAIL:

Certified mail service provides for a receipt to the sender and a record of delivery at the office of address. No record is kept at the office where mailed. It is handled in the ordinary mails and no insurance coverage is provided.

Any first-class mail having no intrinsic value will be accepted as certified mail. This does not exclude articles of a non-negotiable character and other matter which would involve a cost of duplication if lost or destroyed. The mail may be sent by air on payment of the required postage. Return receipt service requested at the time of mailing only, and special delivery service are available.

Fees are as follows: Fee in addition to postage, 20¢; return receipt showing to whom and when delivered, 10¢; return receipt showing to whom, when, and address where delivered, 35¢; restricted delivery, 50¢.

INSURED MAIL:

Fees for domestic insured mail (third- and fourth-class matter):

Insurance coverage	Fee
\$.00 to \$ 10.00	10¢
10.01 to 50.00	20¢
50.01 to 100.00	30¢
100.01 to 200.00	40¢

C.O.D. MAIL:

Fees for domestic unregistered C.O.D. mail (third- and fourth-class matter and sealed domestic mail matter of any class bearing postage at the first-class rate):

Indemnity limit	Fee
\$.01 to \$ 5.00 .....	.30
5.01 to 10.00 .....	.40
10.01 to 25.00 .....	.60
25.01 to 50.00 .....	.70
50.01 to 100.00 .....	.80
100.01 to 150.00 .....	.90
150.01 to 200.00	1.00

Fees for domestic registered C.O.D. mail (sealed domestic mail of any class bearing postage at the first-class rate):

Amount collectible and indemnity payable	Fee
\$.01 to \$ 10.00 .....	.80
10.01 to 50.00	1.10
50.01 to 100.00	1.20
100.01 to 200.00*	1.40

* Limit of collections.

When indemnity in excess of \$200 is desired, the fees for domestic registered C.O.D. mail are:

Indemnity limit	Fee
\$200.01 to \$ 300.00	\$1.50
300.01 to 400.00	1.60
400.01 to 500.00	1.70
500.01 to 600.00	1.80
600.01 to 700.00	1.90
700.01 to 800.00	2.00
800.01 to 1000.00	2.10

MISCELLANEOUS:

In registered and insured mail, a receipt card will be returned to the sender upon request. When a card is requested showing to whom and when the delivery was made, the rate is 10¢ if the request is made at the time of mailing, 25¢ if made thereafter. When a card is requested showing to whom and when the delivery was made and the address, the rate is 35¢ and must be paid at the time of mailing.

Fees for effecting delivery of domestic registered, insured, and C.O.D. mail to addressee only or to addressee or order: 50¢.

Fee for notifying sender or his representative of inability to deliver a C.O.D. article: 5¢.

Certificates of mailing for ordinary mail of any class: 5¢ for each article described thereon. Additional certificates for ordinary, registered, insured and C.O.D. mail: 2¢ for each article described thereon.

C.O.D. mail cannot be sent to Navy personnel on board ships or at overseas shore stations.

FOREIGN REGULAR MAIL:

Letters and letter packages: To Canada and Mexico, 4¢ per oz. or fraction. To all other countries, 8¢ for 1st oz., 5¢ per additional oz. or fraction. Weight limit: 4 lb. 6 oz. (60 lb. to Canada).

Post cards: To Canada and Mexico, 3¢ each, 6¢ with reply paid. To all other countries, 5¢ each, 10¢ with reply paid.

FOREIGN AIRMAIL:

Air-letter sheets: Air letters, consisting of sheets which can be folded into the form of an envelope and sealed, are acceptable for dispatch by airmail at a uniform rate of 10¢ each to all foreign countries. The sheets are sold at all post offices at 10¢ each. No enclosures, adhesive tape or stickers are permitted.

Letters and letter packages: See table for rates.

Airmail Rates from U. S. to Selected Countries

Country	Air-mail ¹	Air parcel post			Country	Air-mail ¹	Air parcel post		
		Initial unit ²	Addl. weight ³	Limit, lbs.			Initial unit ²	Addl. weight ³	Limit, lbs.
Albania.....	\$.15	....	....	..	Indonesia.....	\$.25	\$1.75	\$1.00	11
Algeria.....	.15	....	....	..	Iran.....	.25	1.47	.72	44
Argentina.....	.10	\$1.51	\$.76	44	Iraq.....	.25	1.47	.72	44
Australia.....	.25	1.62	1.27	22	Ireland.....	.15	.97	.37	22
Austria.....	.15	1.05	.49	22	Israel.....	.25	1.42	.67	22
Bahamas.....	.10	.83	.14	22	Italy.....	.15	1.08	.50	44
Belgium.....	.15	.98	.43	44	Jamaica.....	.10	.95	.18	22
Bermuda.....	.10	.76	.13	22	Japan.....	.25	1.27	.91	22
Bolivia.....	.10	1.08	.40	44	Jordan.....	.25	....	....	..
Brazil.....	.10	1.48	.64	44 ⁴	Korea, Rep. of.....	.25	1.37	1.01	22
British Guiana.....	.10	1.07	.39	22	Lebanon.....	.25	1.22	.64	44 ¹³
British Honduras.....	.10	.80	.20	22	Liberia.....	.25	.86	.56	22
Bulgaria.....	.15	....	....	..	Mexico.....	.07 ⁵	.64	.18	44
Burma.....	.25	....	....	..	Morocco.....	.15	1.19	.54	44
Canada ⁶.....	.07	....	....	..	Netherlands.....	.15	.89	.44	44
Ceylon.....	.25	1.75	1.00	22	New Zealand.....	.25	1.82	1.17	22
Chile.....	.10	1.31	.56	22	Nicaragua.....	.10	.80	.29	44
China ⁷.....	.25	1.43 ⁸	1.08	44	Norway.....	.15	1.02	.47	44
Colombia.....	.10	1.21	.40	44	Pakistan.....	.25	1.63	.84	22
Costa Rica.....	.10	.79	.29	44	Panamá.....	.10	.91	.21	44
Cuba.....	.10	(⁹)	(⁹)	22	Paraguay.....	.10	1.00	.50	44
Czechoslovakia.....	.15	.88	.48	44	Peru.....	.10	1.23	.37	44
Denmark.....	.15	.97	.47	44	Philippines.....	.25	1.81	1.26	44 ⁸
Dominican Republic.....	.10	.86	.22	44	Poland.....	.15	1.06	.52	44
Ecuador.....	.10	1.24	.33	44	Portugal.....	.15	.71	.44	22
Egypt.....	.15	1.35	.64	22	Rumania.....	.15	....	....	..
El Salvador.....	.10	1.02	.26	44	Saudi Arabia.....	.25	1.60 ¹¹	.80 ¹¹	22 ¹¹
Ethiopia.....	.25	....	....	..	Spain.....	.15	1.25	.50	22
Finland.....	.15	.88	.51	44	Surinam.....	.10	.92	.41	44
France.....	.15	1.22	.44	44	Sweden.....	.15	.85	.49	44
French Guiana.....	.10	.79	.44	11	Switzerland.....	.15	.92	.46	44
Germany.....	.15	.95	.45	44	Syria.....	.25	1.22	.64	44 ¹²
Greece.....	.15	1.07	.57	22	Thailand.....	.25	2.29	1.50	22
Guatemala.....	.10	1.01	.25	44	Turkey.....	.15	1.15	.57	44
Haiti.....	.10	.72	.21	44	U. of S. Africa.....	.25	1.31	.94	11
Honduras, Rep. of.....	.10	.78	.28	44 ¹⁰	U.S.S.R.....	.15	1.66	.63	44
Hong Kong.....	.25	1.74	1.39	22	United Kingdom.....	.15	1.00	.41	22
Hungary.....	.15	....	....	..	Uruguay.....	.10	1.26	.76	44
Iceland.....	.15	.89	.33	44	Venezuela.....	.10	1.27	.36	44
India.....	.25	1.70	.96	22	Yugoslavia.....	.15	.87	.52	44

¹ For letters and letter packages. Unless otherwise indicated, rate shown is per each ¼ oz., and weight is limited to 4 lb., 6 oz. For rates for commercial papers, printed matter, samples of merchandise, small packages, 8-oz. merchandise packages, combination packages and articles grouped together, consult local postmaster. ² Rate for 4 oz. or fraction thereof. ³ Rate for each additional 4 oz. or fraction thereof. ⁴ Parcels for Brazil exceeding 22 lb. accepted for following offices only: Belém (Para), Belo Horizonte, Florianópolis, Fortaleza, Manaus, Pelotas, Porto Alegre, Recife (Pernambuco), Rio de Janeiro, Rio Grande (Rio Grande do Sul), Salvador (Bahia), Santos and São Paulo. ⁵ Per oz.; post cards each 1¢. ⁶ Articles limited to 60 lb. in weight. ⁷ Registered and ordinary articles in regular mails for Island of Formosa (Taiwan) will be accepted for air transmission to destination. ⁸ Parcels for many offices are limited to 22 lb. or 7 lb. Consult local postmaster for limitations. ⁹ Service to Cuba is limited to parcels weighing over 8 oz. and up to 22 lb. Cost for initial weight unit, which is over 8 oz. and up to 12 oz., is \$1.10. Each additional 4 oz. or fraction is 15¢. Packages weighing 8 oz. or less must not have customs declarations or parcel post stickers attached. ¹⁰ Parcels for Honduras exceeding 22 lb. accepted for following offices only: Amapala, Comayagua, La Ceiba, Olanchito, Progreso, Puerto Castilla, Puerto Cortez, San Pedro Sula, Tegucigalpa and Tela. ¹¹ Air parcels for Saudi Arabia limited to the following places only: Al Gaba, Al Lith, Al Wejh, Daba, Dammam, Dhahran, Hassa, Jiddah, Jizam, Katif, Khobar, Mecca, Medina, Qunūdhā, Rabigh, Rastanurra, Rivadh, Umm Lej and Yenbo. ¹² Limit to Chahba and Salkhad is 11 lb.; limit to Tel-Abiad and Yabroud is 22 lb. ¹³ Parcels for Lebanon exceeding 11 lb. not accepted for following offices: Ain-Zhalta, Baino, Falougha, Hermel, Koubayat, Maaser-el-Chouf, Ras-Baalbeek and Souk-el-Gharb. NOTE: For rates to countries not shown in this table, consult local postmaster. Leaders (....) indicate that there is no air-parcel-post service to the country.

HOW A PRESIDENT IS ELECTED

Selection of Delegates

FIRST, AT FULL DRESS MEETINGS several months before, the national committees decide the time and place of the conventions. Before the conventions meet, each party selects delegates from every state and territory.

Democrats allow 2 delegates with 1 vote apiece for each Senator, or 4 delegates with $\frac{1}{2}$ vote apiece. Two delegates are allowed for each Congressman. Also, a bonus vote of 4 is allowed each state that went Democratic in the last Presidential election. These states may elect 8 delegates with $\frac{1}{2}$ vote each. Six delegates each are allowed to Puerto Rico, D. C., Alaska, and Hawaii, and 2 each to the Canal Zone and the Virgin Islands.

Republicans allow each state 4 delegates-at-large and 2 for each Representative-at-large, as well as 6 additional delegates if the state went Republican in the previous Presidential election or, in that election or a subsequent one held prior to the next Republican National Convention, elects a Republican U. S. Senator or Governor. In addition, each Congressional district within the state that cast 2,000 Republican votes at the last election is permitted a delegate, with an additional delegate if that district cast 10,000 votes. Republicans further allow 4 delegates-at-large for Alaska, 6 for D. C., 6 for Hawaii (plus 4 for having elected a Delegate to Congress), 3 for Puerto Rico and 1 for the Virgin Islands.

Each party provides for the selection of an equal number of alternates to serve in the absence of the regular delegates. Delegates are chosen differently in the different states.

The Conventions

At each convention a temporary chairman is chosen, usually to deliver the party's keynote speech. After a credentials committee seats the various delegates, a permanent chairman is elected. The convention then votes on a platform, drawn up by the platform committee.

By the third or fourth day, Presidential nominations begin. The chairman calls the roll of states alphabetically. A state may place a candidate in nomination or yield to another state.

Voting, again alphabetically by voice vote, begins after all nominations have been made and seconded. A simple majority is required in each party, although this may require many ballots.

Finally, the Vice Presidential candidate is selected. Although there is no law saying that the candidates *must* come from different states, it is practically necessary for this to be the case. Otherwise, accord-

ing to the Constitution (see Amendment XII), electors from that state could vote for only one of the candidates and would have to cast their other vote for some person of another state. This could result in the awkward situation of a Presidential candidate's receiving a majority electoral vote and his running mate's failing to.

The Electoral College

The next step in the process is the nomination of electors in each state, according to its laws. These electors must not be Federal office holders. In the November election, the voters cast their votes for electors, not for President. In some states, the ballots include only the names of the Presidential and Vice Presidential candidates; in others, they include only names of the electors. Nowadays, it is rare for electors to be split between parties. The last such occurrence was in Tennessee in 1948; the last before that, in West Virginia in 1916. On three occasions (1824, 1876 and 1888), the candidate with the largest popular vote failed to obtain an electoral-vote majority.

Each state has as many electors as it has United States Senators and members of the House of Representatives. There are 96 Senators and 435 Representatives, a total of 531 electoral votes, of which 266 are needed to win.

On the first Monday after the second Wednesday in December, the electors cast their votes in their respective state capitols. Constitutionally they may vote for someone other than the party candidate but practically they cannot since they are pledged to one party and its candidate on the ballot. Should the Presidential or Vice-Presidential candidate die between the November election and the December meetings, the electors pledged to vote for him could vote for whomever they pleased. However, it seems certain that the national committee would attempt to get an agreement among the state party leaders for a replacement candidate.

The votes of the electors, certified by the states, are sent to Congress, where the president of the Senate opens the certificates and has them counted in the presence of both Houses on January 6. The new President is inaugurated at noon on January 20.

Should no candidate receive a majority of the electoral vote for President, the House of Representatives chooses a President from among the three highest candidates, voting, not as individuals, but as states, with a majority (now 25) needed to elect. Should no Vice Presidential candidate obtain the majority, the Senate, voting as individuals, chooses from the highest two.

U. S. National Conventions Since 1856

Opening date	Party	Where held	Presidential nominee	Vote
June 17, 1856	R	Philadelphia	John C. Frémont	520
June 2, 1856	D	Cincinnati	James Buchanan	296
May 16, 1860	R	Chicago	Abraham Lincoln	364
April 23, 1860	D	Charleston & Baltimore	S. A. Douglas	181
June 7, 1864	R	Baltimore	Abraham Lincoln	Unanimous
Aug. 29, 1864	D	Chicago	Geo. B. McClellan	202½
May 20, 1868	R	Chicago	U. S. Grant	Unanimous
July 4, 1868	D	New York City	Horatio Seymour	Unanimous
June 5, 1872	R	Philadelphia	U. S. Grant	Unanimous
June 9, 1872	D	Baltimore	Horace Greeley	688
June 14, 1876	R	Cincinnati	R. B. Hayes	384
June 28, 1876	D	St. Louis	S. J. Tilden	508
June 2, 1880	R	Chicago	J. A. Garfield	399
June 23, 1880	D	Cincinnati	W. S. Hancock	705
June 3, 1884	R	Chicago	J. G. Blaine	541
July 11, 1884	D	Chicago	Grover Cleveland	683
June 19, 1888	R	Chicago	Benjamin Harrison	544
June 6, 1888	D	St. Louis	Grover Cleveland	By acclamation
June 7, 1892	R	Minneapolis	Benjamin Harrison	535⅓
June 21, 1892	D	Chicago	Grover Cleveland	617½
June 16, 1896	R	St. Louis	William McKinley	661½
July 7, 1896	D	Chicago	William J. Bryan	500
June 19, 1900	R	Philadelphia	William McKinley	Unanimous
July 4, 1900	D	Kansas City	William J. Bryan	By acclamation
June 21, 1904	R	Chicago	Theodore Roosevelt	Unanimous
July 6, 1904	D	St. Louis	Alton B. Parker	678
June 16, 1908	R	Chicago	William H. Taft	702
July 7, 1908	D	Denver	William J. Bryan	892½
June 18, 1912	R	Chicago	William H. Taft	561
June 25, 1912	D	Baltimore	Woodrow Wilson	990
June 7, 1916	R	Chicago	Charles E. Hughes	949½
June 14, 1916	R	St. Louis	Woodrow Wilson	By acclamation
June 8, 1920	R	Chicago	Warren G. Harding	692⅓
June 28, 1920	D	San Francisco	James M. Cox	732½
June 10, 1924	R	Cleveland	Calvin Coolidge	1,065
June 24, 1924 ²	D	New York City	John W. Davis	839 ³
June 12, 1928	R	Kansas City	Herbert Hoover	837
June 26, 1928	D	Houston	Alfred E. Smith	849½
June 14, 1932	R	Chicago	Herbert Hoover	1,126½
June 27, 1932	D	Chicago	F. D. Roosevelt	945
June 9, 1936	R	Cleveland	Alfred M. Landon	984
June 23, 1936	D	Philadelphia	F. D. Roosevelt	By acclamation
June 24, 1940	R	Philadelphia	Wendell L. Willkie	Unanimous
July 15, 1940	D	Chicago	F. D. Roosevelt	Unanimous
June 26, 1944	R	Chicago	Thomas E. Dewey	1,056
July 19, 1944	D	Chicago	F. D. Roosevelt	1,086-90
June 21, 1948	R	Philadelphia	Thomas E. Dewey	1,094-0
July 12, 1948	D	Philadelphia	Harry S. Truman	947½-263½
July 17, 1948	(⁴)	Birmingham	J. Strom Thurmond	By acclamation
July 22, 1948	(⁵)	Philadelphia	Henry A. Wallace	By acclamation
July 7, 1952	R	Chicago	Dwight D. Eisenhower	845-361
July 21, 1952	D	Chicago	Adlai E. Stevenson	By acclamation
Aug. 13, 1956	D	Chicago	Adlai E. Stevenson	By acclamation
Aug. 20, 1956	R	San Francisco	Dwight D. Eisenhower	Unanimous

¹ The Convention adopted the name Union party so as to attract War Democrats and others favoring prosecution of the war. ² In session until July 10, 1924. ³ 103d ballot. ⁴ States' Rights delegates from 13 Southern states. ⁵ Progressive party.

Presidential Succession

The following is the order of the succession to the Presidency. No person may become President, however, unless he is eligible under the Constitution.

1. Vice President of the U. S.
2. Speaker of the House.
3. President pro tempore of the Senate.
4. Secretary of State.

5. Secretary of the Treasury.
6. Secretary of Defense.
7. Attorney General.
8. Postmaster General.
9. Secretary of the Interior.
10. Secretary of Agriculture.
11. Secretary of Commerce.
12. Secretary of Labor.

Presidential Elections, 1789 to 1956

Year	Presidential candidates	Party	Electoral vote	Year	Presidential candidates	Party	Electoral vote
1789 ^{1,2}	George Washington	(no party)	69	1796 ¹	John Adams	Federalist	71
	John Adams	(no party)	34		Thomas Jefferson	Dem.-Rep.	68
	Scattering	(no party)	35		Thomas Pinckney	Federalist	59
	Votes not cast		8		Aaron Burr	Dem.-Rep.	30
1792 ¹	George Washington	Federalist	132	1800 ^{1,3}	Thomas Jefferson	Dem.-Rep.	73
	John Adams	Federalist	77		Aaron Burr	Dem.-Rep.	73
	George Clinton	Anti-Federalist	50		John Adams	Federalist	65
	Thomas Jefferson	Anti-Federalist	4		Charles C. Pinckney	Federalist	64
	Aaron Burr	Anti-Federalist	1		John Jay	Federalist	1
	Votes not cast		6				

¹ For the original method of electing the President and the Vice President, see Article II, Section 1, of the Constitution. ² Only 10 states participated in the election. The New York legislature chose no electors, and North Carolina and Rhode Island had not yet ratified the Constitution. ³ As Jefferson and Burr were tied, the House of Representatives chose the President. In a vote by states, 10 votes were cast for Jefferson, 4 for Burr; 2 votes were not cast.

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1804 ¹	Thomas Jefferson	Dem.-Rep.	162	George Clinton	Dem.-Rep.	162
	Charles C. Pinckney	Federalist	14	Rufus King	Federalist	14
1808	James Madison	Dem.-Rep.	122	George Clinton	Dem.-Rep.	113
	Charles C. Pinckney	Federalist	47	Rufus King	Federalist	47
	George Clinton	Dem.-Rep.	6	John Langdon	Ind. (no party)	9
	Votes not cast		1	James Madison	Dem.-Rep.	3
1812	James Madison	Dem.-Rep.	128	James Monroe	Dem.-Rep.	3
	De Witt Clinton	Federalist	89	Votes not cast		1
	Votes not cast		1	Elbridge Gerry	Dem.-Rep.	131
				Jared Ingersoll	Federalist	86
1816	James Monroe	Dem.-Rep.	183	Votes not cast		1
	Rufus King	Federalist	34	Daniel D. Tompkins	Dem.-Rep.	183
	Votes not cast		4	John E. Howard	Federalist	22
				James Ross	Ind. (no party)	5
1820	James Monroe	Dem.-Rep.	231	John Marshall	Federalist	4
	John Quincy Adams	Ind. (no party)	1	Robert G. Harper	Ind. (no party)	3
	Votes not cast		3	Votes not cast		4
				Daniel D. Tompkins	Dem.-Rep.	218
1824 ²	John Quincy Adams	(no party)	84	Richard Stockton	Ind. (no party)	8
	Andrew Jackson	(no party)	99	Daniel Rodney	Ind. (no party)	4
	William H. Crawford	(no party)	41	Richard Rush	Ind. (no party)	1
	Henry Clay	(no party)	37	Robert G. Harper	Ind. (no party)	1
1828	Andrew Jackson	Democratic	178	Votes not cast		3
	John Quincy Adams	Natl. Rep.	83	John C. Calhoun	(no party)	182
				Nathan Sanford	(no party)	30
				Nathaniel Macon	(no party)	24
1832	Andrew Jackson	Democratic	219	Andrew Jackson	(no party)	13
	Henry Clay	Natl. Rep.	49	Martin Van Buren	(no party)	9
	John Floyd	Ind. (no party)	11	Henry Clay	(no party)	2
	William Wirt ³	Antimasonic	7	Votes not cast		1
1836	Votes not cast		2	John C. Calhoun	Democratic	171
	Martin Van Buren	Democratic	170	Richard Rush	Natl. Rep.	83
	William H. Harrison	Whig	73	William Smith	Democratic	7
	Hugh L. White	Whig	26	Martin Van Buren	Democratic	189
1840	Daniel Webster	Whig	14	John Sergeant	Natl. Rep.	49
	W. P. Mangum	Ind. (no party)	11	Henry Lee	Ind. (no party)	11
	William H. Harrison ³	Whig	234	Amos Ellmaker	Antimasonic	7
	Martin Van Buren	Democratic	60	William Wilkins	Ind. (no party)	30
				Votes not cast		2
				Richard M. Johnson ⁴	Democratic	147
				Francis Granger	Whig	77
				John Tyler	Democratic	47
				William Smith	Ind. (no party)	23
				John Tyler	Whig	234
				Richard M. Johnson	Democratic	48
				L. W. Tazewell	Ind. (no party)	11
				James K. Polk	Democratic	1

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1844	James K. Polk	Democratic	170	George M. Dallas	Democratic	170
	Henry Clay	Whig	105	Theo. Frelinghuysen	Whig	105
1848	Zachary Taylor ^a	Whig	163	Millard Fillmore	Whig	163
	Lewis Cass	Democratic	127	William O. Butler	Democratic	127
1852	Franklin Pierce	Democratic	254	William R. King	Democratic	254
	Winfield Scott	Whig	42	William A. Graham	Whig	42
1856	James Buchanan	Democratic	174	John C. Breckinridge	Democratic	174
	John C. Frémont	Republican	114	William L. Dayton	Republican	114
	Millard Fillmore	American ⁷	8	A. J. Donelson	American ⁷	8
1860	Abraham Lincoln	Republican	180	Hannibal Hamlin	Republican	180
	John C. Breckinridge	Democratic	72	Joseph Lane	Democratic	72
	John Bell	Const. Union	39	Edward Everett	Const. Union	39
	Stephen A. Douglas	Democratic	12	H. V. Johnson	Democratic	12
1864	Abraham Lincoln ⁸	Union ¹⁰	212	Andrew Johnson	Union ¹⁰	212
	George B. McClellan	Democratic	21	G. H. Pendleton	Democratic	21
1868	Ulysses S. Grant	Republican	214	Schuyler Colfax	Republican	214
	Horatio Seymour	Democratic	80	Francis P. Blair, Jr.	Democratic	80
	Votes not counted ⁹		23	Votes not counted ⁹		23

¹ The first election in which the electors voted for President and Vice President on separate ballots. (See Amendment XII to the Constitution.) ² As no candidate had an electoral-vote majority, the House of Representatives chose the President from the first three. In a vote by states, 13 votes were cast for Adams, 7 for Jackson, and 4 for Crawford. ³ The Antimasonic party on Sept. 26, 1831, was the first party to hold a nominating convention to choose candidates for President and Vice President. ⁴ As Johnson did not have an electoral-vote majority, the Senate chose him 33-14 over Granger, the others being legally out of the race. ⁵ Harrison died Apr. 4, 1841, and Tyler succeeded him Apr. 6. ⁶ Taylor died July 9, 1850, and Fillmore succeeded him July 10. ⁷ Also known as the Know-Nothing party. ⁸ Lincoln died Apr. 15, 1865, and Johnson succeeded him the same day. ⁹ 23 Southern electoral votes were excluded. ¹⁰ Name adopted by the Republican National Convention of 1864. Johnson was a War Democrat.

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1872	Ulysses S. Grant	Republican	286	3,597,132	Henry Wilson—R
	Horace Greeley	Dem., Liberal Rep.	(*)	2,834,125	B. Gratz Brown—D, LR—(47)
	Thomas A. Hendricks	Democratic	42		Scattering—(19)
	B. Gratz Brown	Dem., Liberal Rep.	18		Votes not counted—(14)
	Charles J. Jenkins	Democratic	2		
	David Davis	Democratic	1		
	Votes not counted		17		
1876 ³	Rutherford B. Hayes	Republican	185	4,033,768	William A. Wheeler—R
	Samuel J. Tilden	Democratic	184	4,285,992	Thomas A. Hendricks—D
	Peter Cooper	Greenback	0	81,737	Samuel F. Cary—G
1880	James A. Garfield ⁴	Republican	214	4,449,053	Chester A. Arthur—R
	Winfield S. Hancock	Democratic	155	4,442,035	William H. English—D
	James B. Weaver	Greenback	0	308,578	B. J. Chambers—G
1884	Grover Cleveland	Democratic	219	4,911,017	Thomas A. Hendricks—D
	James G. Blaine	Republican	182	4,848,334	John A. Logan—R
	Benjamin F. Butler	Greenback	0	175,370	A. M. West—G
	John P. St. John	Prohibition	0	150,369	William Daniel—P
1888	Benjamin Harrison	Republican	233	5,440,216	Levi P. Morton—R
	Grover Cleveland	Democratic	168	5,538,233	A. G. Thurman—D
	Clinton B. Fisk	Prohibition	0	249,506	John A. Brooks—P
	Alson J. Streeter	Union Labor	0	146,935	Charles E. Cunningham—UL
1892	Grover Cleveland	Democratic	277	5,556,918	Adlai E. Stevenson—D
	Benjamin Harrison	Republican	145	5,176,108	Whitelaw Reid—R
	James B. Weaver	People's ⁵	22	1,041,028	James G. Field—Peo
	John Bidwell	Prohibition	0	264,133	James B. Cranfill—P
1896	William McKinley	Republican	271	7,035,638	Garret A. Hobart—R
	William J. Bryan	Dem., People's ⁵	176	6,467,946	Arthur Sewall—D—(149)
					Thomas E. Watson—Peo—(27)
	John M. Palmer	Natl. Dem.	0	133,148	Simon B. Buckner—ND
	Joshua Levering	Prohibition	0	132,007	Hale Johnson—P
1900	William McKinley ⁶	Republican	292	7,219,530	Theodore Roosevelt—R
	William J. Bryan	Dem., People's ⁶	155	6,358,071	Adlai E. Stevenson—D, Peo
	John G. Woolley	Prohibition	0	208,914	Henry B. Metcalf—P
	Eugene V. Debs	Social Democratic	0	94,768	Job Harriman—SD

Year	Presidential candidates	Party	Electoral vote	Popular vote ¹	Vice-presidential candidates and party
1904	Theodore Roosevelt	Republican	336	7,628,834	Charles W. Fairbanks—R
	Alton B. Parker	Democratic	140	5,084,491	Henry G. Davis—D
	Eugene V. Debs	Socialist	0	402,400	Benjamin Hanford—S
	Silas C. Swallow	Prohibition	0	258,536	George W. Carroll—P
	Thomas E. Watson	People's	0	117,183	Thomas H. Tibbles—Peo
1908	William H. Taft	Republican	321	7,679,006	James S. Sherman—R
	William J. Bryan	Democratic	162	6,409,106	John W. Kern—D
	Eugene V. Debs	Socialist	0	420,820	Benjamin Hanford—S
	Eugene W. Chafin	Prohibition	0	253,840	Aaron S. Watkins—P
	Thomas L. Hisgen	Independence	0	82,872	John T. Graves—I
1912	Woodrow Wilson	Democratic	435	6,286,214	Thomas R. Marshall—D
	Theodore Roosevelt	Progressive	88	4,126,020	Hiram Johnson—Prog
	William H. Taft	Republican	8	3,483,922	Nicholas M. Butler—R ⁷
	Eugene V. Debs	Socialist	0	897,011	Emil Seidel—S
	Eugene W. Chafin	Prohibition	0	206,275	Aaron S. Watkins—P
1916	Woodrow Wilson	Democratic	277	9,129,606	Thomas R. Marshall—D
	Charles E. Hughes	Republican	254	8,538,221	Charles W. Fairbanks—R
	A. L. Benson	Socialist	0	585,113	G. R. Kirkpatrick—S
	J. Frank Hanly	Prohibition	0	220,506	Ira Landrith—P
1920	Warren G. Harding ^a	Republican	404	16,152,200	Calvin Coolidge—R
	James M. Cox	Democratic	127	9,147,353	Franklin D. Roosevelt—D
	Eugene V. Debs	Socialist	0	917,799	Seymour Stedman—S
	P. P. Christensen	Farmer-Labor	0	265,411	Max S. Hayes—FL
	Aaron S. Watkins	Prohibition	0	189,408	D. Leigh Colvin—P
1924	Calvin Coolidge	Republican	382	15,725,016	Charles G. Dawes—R
	John W. Davis	Democratic	136	8,385,586	Charles W. Bryan—D
	Robert M. LaFollette	Progressive, Socialist	13	4,822,856	Burton K. Wheeler—Prog S
1928	Herbert Hoover	Republican	444	21,392,190	Charles Curtis—R
	Alfred E. Smith	Democratic	87	15,016,443	Joseph T. Robinson—D
1932	Franklin D. Roosevelt	Democratic	472	22,821,857	John N. Garner—D
	Herbert Hoover	Republican	59	15,761,841	Charles Curtis—R
1936	Franklin D. Roosevelt	Democratic	523	27,751,597	John N. Garner—D
	Alfred M. Landon	Republican	8	16,679,583	Frank Knox—R
1940	Franklin D. Roosevelt	Democratic	449	27,244,160	Henry A. Wallace—D
	Wendell L. Willkie	Republican	82	22,305,198	Charles L. McNary—R
1944	Franklin D. Roosevelt ^a	Democratic	432	25,602,504	Harry S. Truman—D
	Thomas E. Dewey	Republican	99	22,006,285	John W. Bricker—R
1948	Harry S. Truman	Democratic	303	24,105,695	Alben W. Barkley—D
	Thomas E. Dewey	Republican	189	21,969,170	Earl Warren—R
	J. Strom Thurmond	States' Rights Dem.	39	1,169,021	Fielding L. Wright—SR
	Henry A. Wallace	Progressive	0	1,156,103	Glen Taylor—Prog
1952	Dwight D. Eisenhower	Republican	442	33,824,351	Richard M. Nixon—R
	Adlai E. Stevenson	Democratic	89	27,314,987	John J. Sparkman—D
1956 ¹⁰	Dwight D. Eisenhower	Republican	457	35,581,003	Richard M. Nixon—R
	Adlai E. Stevenson	Democratic	73	25,738,765	Estes Kefauver—D

NOTE: For minor party vote and candidates, see tables on following pages for 1948-1956.

¹ For those candidates receiving over 75,000 votes. ² Greeley died Nov. 29, 1872, before his 66 electors voted. In the electoral balloting for President, 63 of Greeley's votes were scattered among Hendricks, Brown, Jenkins and Davis; the other 3, included in "Votes not counted," were cast for Greeley by electors from Georgia. This was the first election in which every state chose its electors by popular vote. ³ After the voting of the electoral college, Tilden had 184 undisputed votes, and Hayes 163. However, 22 other votes were in doubt, because two sets of electoral ballots were received from South Carolina, Louisiana, Florida and Oregon. For each of the three Southern states, one set was completely Democratic, the other completely Republican. For Oregon, one set gave all 3 of the state's votes to Hayes, the other gave one of the votes to Tilden. To settle the dispute, Congress created an Electoral Commission on Jan. 29, 1877. This Commission, consisting of 5 Supreme Court justices, 5 senators and 5 representatives (8 Republicans and 7 Democrats), gave the 22 votes in question to Hayes. ⁴ Garfield died Sept. 19, 1881, and Arthur succeeded him Sept. 20. ⁵ The members of the People's party were known as Populists. ⁶ McKinley died Sept. 14, 1901, and Roosevelt succeeded him the same day. ⁷ James S. Sherman, Republican candidate for Vice President, died Oct. 30, 1912, and the Republican electoral votes were cast for Butler. ⁸ Harding died Aug. 2, 1923, and Coolidge succeeded him Aug. 3. ⁹ Roosevelt died Apr. 12, 1945, and Truman succeeded him the same day. ¹⁰ One electoral vote from Alabama was cast for Walter B. Jones.

Presidential Election of 1948

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Democratic—Harry S. Truman, Missouri; Alben Barkley, Kentucky.

Republican—Thomas E. Dewey, New York; Earl Warren, California.

States' Rights Democratic—J. Strom Thurmond, South Carolina; Fielding L. Wright, Mississippi.

Progressive—Henry A. Wallace, Iowa; Glen H. Taylor, Idaho.

Socialist—Norman Thomas, New York; Tucker P. Smith, Michigan.

Prohibition—Claude A. Watson, California; Dale Learn, Pennsylvania.

Socialist Labor—Edward A. Teichert, Pennsylvania; Stephen Emery, New York.

State	Total	Dem.	Rep.	SR Dem.	Plur.	Electoral			Prog. ¹	Others ²	
						D	R	S			
Alabama.....	214,980	(*)	40,930	171,443	130,513	S	..	11	1,522	1,085	
Arizona.....	177,065	95,251	77,597	..	17,654	D	4	..	3,310	907	
Arkansas.....	242,475	149,659	50,959	40,068	98,700	D	9	..	751	1,038	
California.....	4,021,538	1,913,134	1,895,269	1,228 ⁵	17,865	D	25	..	190,381	21,526	
Colorado.....	515,237	267,288	239,714	.....	27,574	D	6	..	6,115	2,120
Connecticut.....	883,518	423,297	437,754	.....	14,457	R	..	8	13,713	8,754
Delaware.....	139,073	67,813	69,588	.....	1,775	R	..	3	1,050	622
Florida.....	577,643	281,988	194,280	89,755	87,708	D	8	..	11,620	.....
Georgia.....	418,760	254,646	76,691	85,055	169,591	D	12	..	1,636	732	
Idaho.....	214,816	107,370	101,514	.....	5,856	D	4	..	4,972	960
Illinois.....	3,984,046	1,994,715	1,961,103	.....	33,612	D	28	..	.....	28,228
Indiana.....	1,656,214	807,833	821,079	.....	13,246	R	..	13	9,649	17,653
Iowa.....	1,038,264	522,380	494,018	.....	28,362	D	10	..	12,125	9,741
Kansas.....	788,819	351,902	423,039	.....	71,137	R	..	8	4,603	9,275
Kentucky.....	822,658	466,756	341,210	10,411	125,546	D	11	..	1,567	2,714	
Louisiana.....	416,326	136,344	72,657	204,290	67,946	S	..	10	3,035	.....
Maine.....	264,787	111,916	150,234	.....	38,318	R	..	5	1,884	753
Maryland.....	596,735	286,521	294,814	2,476 ⁶	8,293	R	..	8	9,983	2,941	
Massachusetts.....	2,155,347	1,151,788	909,370	.....	242,418	D	16	..	38,157	56,032
Michigan.....	2,109,609	1,003,448	1,038,595	.....	35,147	R	..	19	46,515	21,051
Minnesota.....	1,212,226	692,966 ⁴	483,617	.....	209,349	D	11	..	27,866	7,777
Mississippi.....	192,190	19,384 ⁷	5,043 ⁸	167,538 ⁹	148,154	S	..	9	225	.....
Missouri.....	1,578,628	917,315	655,039	.....	262,276	D	15	..	3,998	2,276
Montana.....	224,278	119,071	96,770	.....	22,301	D	4	..	7,313	1,124
Nebraska.....	488,939	224,165	264,774	.....	40,609	R	..	6	.....	.....
Nevada.....	62,117	31,291	29,357	.....	1,934	D	3	..	1,469	.....
New Hampshire.....	231,440	107,995	121,299	7	13,304	R	..	4	1,970	169	
New Jersey.....	1,949,555	895,455	981,124	.....	85,669	R	..	16	42,683	30,293
New Mexico.....	185,767	105,464	80,303	.....	25,161	D	4	..	.....	.....
New York.....	6,274,527	2,780,204 ¹⁰	2,841,163	.....	60,959	R	..	47	509,559	143,601
North Carolina.....	791,209	459,070	258,572	69,652	200,498	D	14	..	3,915	.....
North Dakota.....	220,716	95,812	115,139	374	19,327	R	..	4	8,391	1,000	
Ohio.....	2,936,071	1,452,791	1,445,684	.....	7,107	D	25	..	37,596	.....
Oklahoma.....	721,599	452,782	268,817	.....	183,965	D	10	..	.....	.....
Oregon.....	524,080	243,147	260,904	.....	17,757	R	..	6	14,978	5,051
Pennsylvania.....	3,735,149	1,752,426	1,902,197	.....	149,771	R	..	35	55,161	25,365
Rhode Island.....	326,098	188,619	134,892	.....	53,727	D	4	..	2,587	.....
South Carolina.....	142,571	34,423	5,386	102,607	68,184	S	..	8	154	1	
South Dakota.....	250,105	117,653	129,651	.....	11,998	R	..	4	2,801	.....
Tennessee.....	550,283	270,402	202,914	73,815	67,488	D	11	..	1,864	1,288	
Texas.....	1,147,245	750,700	282,240	106,909	468,460	D	23	..	3,764	3,632	
Utah.....	276,305	149,151	124,402	.....	24,749	D	4	..	2,679	73
Vermont.....	123,382	45,557	75,926	.....	30,369	R	..	3	1,279	620
Virginia.....	419,256	200,786	172,070	43,393	28,716	D	11	..	2,047	960	
Washington.....	905,059	476,165	386,315	.....	89,850	D	8	..	31,692	10,887
West Virginia.....	748,750	429,188	316,251	.....	112,937	D	8	..	3,311	.....
Wisconsin.....	1,276,800	647,310	590,995	.....	56,351	D	12	..	25,292	13,249
Wyoming.....	101,425	52,354	47,947	.....	4,407	D	3	..	931	193
Total.....	48,833,680	24,105,695	21,969,170	1,169,021	2,136,525	D	303	189	39	1,156,103	433,691

¹ Independent Progressive in California; Peoples in Connecticut; Independent in Kansas, Mississippi, Ohio, South Dakota; American Labor in New York; People's Progressive in Wisconsin. ² Industrial Government in Minnesota; New York, Pennsylvania; Independent Socialist Labor in Wisconsin. ³ Breakdown of other votes: Socialist 139,009; Prohibition 103,216; Socialist Labor 29,061; Socialist Workers 13,613; Christian Nationalist 42; Greenback 6; Vegetarian 4; blank 145,320; write-in 1,683; scattering 1,666; void 71. ⁴ Not on ballot. ⁵ Write-in votes. ⁶ Including Farmer-Labor votes. ⁷ National Democratic. ⁸ Contains 2,995 Republican and 2,448 Independent Republican votes. ⁹ Mississippi Democratic. ¹⁰ Includes 222,562 Liberal votes.

Presidential Election of 1952

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Republican—Dwight D. Eisenhower, New York; Richard M. Nixon, California.

Democratic—Adlai E. Stevenson, Illinois; John J. Sparkman, Alabama.

Progressive¹—Vincent Hallinan, California; Mrs. Charlotta A. Bass, New York.

Prohibition—Stuart Hamblen, California; Enoch A. Holtwick, Illinois.

Socialist Labor²—Eric Hass, New York; Stephen Emery, New York.

Socialist—Darlington Hoopes, Pennsylvania; Samuel H. Friedman, New York.

State	Total	Rep.	Dem.	Plur.	Electoral		Prog. ¹	Prohib.	Soc. Lab. ²	Others ³
					R	D				
Alabama	426,120	149,231	275,075	125,844 D	..	11	....	1,814	....	....
Arizona	260,570	152,042	108,528	43,514 R	4	..	....	....	....	....
Arkansas	404,800	177,155	226,300	49,145 D	..	8	....	886	1	458
California	5,141,849	2,897,310	2,197,548	699,762 R	32	..	24,106	15,653	....	7,232
Colorado	630,103	379,782	245,504	134,278 R	6	..	1,919	....	352	2,546
Connecticut	1,096,911	611,012	481,649	129,363 R	8	..	....	....	535	3,715
Delaware	174,025	90,059	83,315	6,744 R	3	..	155	234	242	20
Florida	989,337	544,036	444,950	99,086 R	10	..	....	....	....	351
Georgia	655,803	198,979	456,823	257,844 D	..	12	....	....	....	1
Idaho	276,231	180,707	95,081	85,626 R	4	..	443	....	....	....
Illinois	4,481,058	2,457,327	2,013,920	443,407 R	27	..	....	....	9,363	448
Indiana	1,955,325	1,136,259	801,530	334,729 R	13	..	1,222	15,335	979	....
Iowa	1,268,773	808,906	451,513	357,393 R	10	..	5,085	2,882	139	248
Kansas	896,166	616,302	273,296	343,006 R	8	..	....	6,038	....	530
Kentucky	993,148	495,029	495,729	700 D	..	10	336	1,161	893	....
Louisiana	651,952	306,925	345,027	38,102 D	..	10	....	....	....	....
Maine	351,786	232,353	118,806	113,547 R	5	..	332	....	156	139
Maryland	902,074	499,424	395,337	104,087 R	9	..	7,313	....	....	....
Massachusetts	2,383,398	1,292,325	1,083,525	208,800 R	16	..	4,636	886	1,957	69
Michigan	2,798,592	1,551,529	1,230,657	320,872 D	20	..	3,922	10,331	1,495	658
Minnesota	1,379,483	763,211	608,458 ⁴	154,753 R	11	..	2,666	2,147	2,383	618
Mississippi	285,532	(5)	172,566	59,600 D	..	8	....	....	....	112,966
Missouri	1,892,062	959,429	929,830	29,599 R	13	..	987	885	169	762
Montana	265,037	157,394	106,213	51,181 R	4	..	723	548	....	159
Nebraska	609,660	421,603	188,057	233,546 R	6	..	....	....	....	....
Nevada	82,190	50,502	31,688	18,814 R	3	..	....	....	....	....
New Hampshire	272,950	166,287	106,663	59,624 R	4	..	....	....	....	....
New Jersey	2,419,554	1,374,613	1,015,902	358,711 R	16	..	5,589	989	5,815	16,646
New Mexico	238,608	132,170	105,661	26,509 R	4	..	....	297	35	445
New York	7,128,241	3,952,815	3,104,601 ⁶	848,214 R	45	..	64,211	....	1,560	5,054
North Carolina	1,210,910	558,107	652,803	94,696 D	..	14	....	....	....	....
North Dakota	270,127	191,712	76,694	115,018 R	4	..	344	302	....	1,075
Ohio	3,700,758	2,100,456	1,600,302	500,154 R	25	..	....	....	....	....
Oklahoma	948,984	518,045	430,939	87,106 R	8	..	....	....	....	....
Oregon	695,059	420,815	270,579	150,236 R	6	..	....	....	....	3,665
Pennsylvania	4,580,717	2,415,789	2,146,269	269,520 R	32	..	4,200	8,771	1,347	4,341
Rhode Island	414,498	210,935	203,293	7,642 R	4	..	187	....	83	....
South Carolina	341,086	168,082 ⁷	173,004	4,922 D	..	8	....	....	....	....
South Dakota	294,283	203,857	90,426	113,431 R	4	..	....	....	....	....
Tennessee	892,553	446,147	443,710	2,437 R	11	..	885	1,432	....	379
Texas	2,076,006	1,102,878	969,288	133,590 R	24	..	294	1,983	....	1,563
Utah	329,554	194,190	135,364	58,826 R	4	..	....	....	....	....
Vermont	153,539	109,717	43,355	66,362 R	3	..	282	....	....	185
Virginia	619,689	349,037	268,677	80,360 R	12	..	311	....	1,160	504
Washington	1,102,708	599,107	492,845	106,262 R	9	..	2,460	....	633	7,663
West Virginia	873,548	419,970	453,578	33,608 D	..	8	....	....	....	....
Wisconsin	1,607,370	979,744	622,175	357,569 R	12	..	....	....	....	5,451
Wyoming	129,251	81,047	47,934	33,113 R	3	..	....	194	36	40
Total	61,551,978	33,824,351	27,314,987 ⁸	6,509,364 R	442	89	132,608	72,768	29,333	177,931

¹ Independent Progressive in California; Peace Progressive in Massachusetts; American Labor in New York. ² Industrial Government in Minnesota, New York and Pennsylvania. ³ Breakdown of Other votes: Independent (pledged to Republican candidate in Miss.), 112,966; Socialist, 18,322; Christian Nationalist, 10,557; Socialist Workers, 8,956; write-in, 4,431; Poor Man's, 4,203; scattering, 4,040; Independent, 3,665; Constitution, 2,911; Vincent Hallinan (Independent in Wis.), 2,174; People's party of Connecticut, 1,466; Farrell Dobbs (Independent in Wis.), 1,350; Darlington Hoopes (Independent in Wis.), 1,157; Eric Hass (Independent in Wis.), 770; Social Democrat, 504; America votes were pledged to the Republican candidate; these are shown as Other votes. ⁴ Includes 416,711 Liberal votes. ⁵ Includes 158,289 votes for separate set of electors for Republican candidates by petition.

Presidential Election of 1956

(Compiled from official sources)

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Republican—Dwight D. Eisenhower, New York; Richard M. Nixon, California.

Democratic—Adlai E. Stevenson, Illinois; Estes Kefauver, Tennessee.

Prohibition—Enoch A. Holtwick, Illinois; Edward M. Cooper, California.

Socialist—Darlington Hoopes, Pennsylvania; Samuel H. Friedman, New York.

Socialist Labor—Eric Hass, New York; Georgia Cozzini, Wisconsin.

Socialist Workers—Farrell Dobbs, New York; Myra Tanner Weiff, New York.

State	Total	Rep.	Dem.	Plur.	Electoral vote		Other Votes
					R	D	
Alabama.....	496,861	195,694	280,844	85,150 D	..	10 ¹	American party..... 483
Arizona.....	290,173	176,990	112,880	64,110 R	4	..	American Third party..... 1,829
Arkansas.....	406,572	186,287	213,277	26,990 D	..	8	Andrews, T. Coleman..... 1,140
California.....	5,466,355	3,027,668	2,420,135	607,533 R	32	..	(write-in)
Colorado.....	663,074	394,479	263,997	130,482 R	6	..	Conservative party..... 5,317
Connecticut.....	1,117,121	711,837	405,079	306,758 R	8	..	Constitution party..... 31,950
Delaware.....	177,988	98,057	79,421	18,636 R	3	..	(Includes 3,202 A. C. party
Florida.....	1,124,220	643,849	480,371	163,478 R	10	..	of Iowa votes)
Georgia.....	668,920	222,778	444,388	221,610 D	..	12	Hass, Eric (write-in)..... 150
Idaho.....	272,989	166,979	105,868	61,111 R	4	..	Hoopes, Darlington..... 82
Illinois.....	4,407,407	2,623,327	1,775,682	847,645 R	27	..	(write-in)
Indiana.....	1,974,607	1,182,811	783,908	398,903 R	13	..	Independent..... 72,235
Iowa.....	1,234,564	729,187	501,858	227,329 R	10	..	Industrial Government..... 2,080
Kansas.....	866,243	566,878	296,317	270,561 R	8	..	Militant Workers..... 2,035
Kentucky.....	1,063,805	572,192	476,453	95,739 R	10	..	Mississippi Black & Tan
Louisiana.....	617,524	329,047	243,977	85,070 R	10	..	Grand Old party..... 4,313
Maine.....	351,706	249,238	102,468	146,770 R	5	..	New party..... 364
Maryland.....	932,351	559,738	372,613	187,125 R	9	..	Prohibition party..... 41,937
Massachusetts.....	2,348,506	1,393,197	948,190	445,007 R	16	..	Socialist party..... 846
Michigan.....	3,080,468	1,713,647	1,359,898	353,749 R	20	..	Socialist Labor party..... 41,510
Minnesota.....	1,340,005	719,302	617,525	101,777 R	11	..	Socialist Workers..... 5,198
Mississippi.....	248,149	56,372	144,498	88,126 D	..	8	States' Rights party..... 109,961
Missouri.....	1,832,572	914,299	918,273	3,974 D	..	13	Virginia Social Democratic
Montana.....	271,171	154,933	116,238	38,695 R	4	..	party..... 444
Nebraska.....	577,137	378,108	199,029	179,079 R	6	..	Werdel, Thomas (write-in)..... 492
Nevada.....	96,689	56,049	40,640	15,409 R	3	..	Write-in..... 1,896
New Hampshire.....	266,994	176,519	90,364	86,155 R	4	..	Scattering (incl. 8 Christian
New Jersey.....	2,484,312	1,606,942	850,337	756,605 R	16	..	Nationalist votes)..... 1,127
New Mexico.....	253,926	146,788	106,098	40,690 R	4	..	Other (not specified)..... 817
New York.....	7,093,336	4,340,340	2,750,769 ²	1,589,571 R	45	..	
North Carolina.....	1,165,592	575,062	590,530	15,468 D	..	14	
North Dakota.....	253,991	156,766	96,742	60,024 R	4	..	
Ohio.....	3,702,265	2,262,610	1,439,655	822,955 R	25	..	TOTAL..... 326,206
Oklahoma.....	859,350	473,769	385,581	88,188 R	8	..	
Oregon.....	735,597	406,393	329,204	77,189 R	6	..	OTHER FACTS ABOUT ELECTIONS
Pennsylvania.....	4,576,503	2,585,252	1,981,769	603,483 R	32	..	Candidate with highest popular vote:
Rhode Island.....	387,609	225,819	161,790	64,029 R	4	..	Eisenhower (1956), 35,581,003.
South Carolina.....	300,583 ³	75,700	136,372	60,672 D	..	8	Candidate with highest electoral vote:
South Dakota.....	293,857	171,569	122,288	49,281 R	4	..	F. Roosevelt (1936), 523.
Tennessee.....	939,404	422,288	456,507	5,781 R	11	..	Candidate carrying most states: F.
Texas.....	1,955,168	1,080,619	859,958	220,661 R	24	..	Roosevelt (1936), 46.
Utah.....	333,995	215,631	118,364	97,267 R	4	..	Candidate running most times: Nor-
Vermont.....	152,978	110,390	42,549	67,841 R	3	..	man Thomas, 6 (1928, 1932, 1936,
Virginia.....	697,978	386,459	267,760	118,699 R	12	..	1940, 1944, 1948).
Washington.....	1,150,889	620,430	523,002	97,428 R	9	..	Candidate elected, defeated, then re-
West Virginia.....	830,831	449,297	381,534	67,763 R	8	..	lected: Cleveland (1884, 1888,
Wisconsin.....	1,550,558	954,844	586,768	368,076 R	12	..	1892).
Wyoming.....	124,127	74,573	49,554	25,019 R	3	..	
Total.....	62,027,040	35,581,003	26,031,322	9,549,681 R	457	73	

¹ Alabama's 11th electoral vote was cast for Walter B. Jones of Alabama. ² Includes 292,557 Liberal Party votes. Includes 88,509 votes for electors nominated by petition.

Electoral Vote for President, 1888-1924

States	1888	1892	1896	1900	1904	1908	1912	1916	1920	1924
	Harrison, Rep. Cleveland, Dem.	Cleveland, Dem. Harrison, Rep. Weaver, Pro.	McKinley, Rep. Bryan, Dem.	McKinley, Rep. Bryan, Dem.	Roosevelt, Rep. Parker, Dem.	Taft, Rep. Bryan, Dem.	Wilson, Dem. Taft, Rep. Roosevelt, Prog.	Wilson, Dem. Hughes, Rep.	Harding, Rep. Cox, Dem.	Coolidge, Rep. Davis, Dem. La Follette, Prog.
Alabama	10	11	11	11	11	11	12	12	12	12
Arizona							3	3	3	3
Arkansas	7	8	8	8	9	9	9	9	9	9
California	8	8	8	9	10	10	2	13	13	13
Colorado	3	4	4	4	5	5	6	6	6	6
Connecticut	6	6	6	6	7	7	7	7	7	7
Delaware	3	3	3	3	3	3	3	3	3	3
Florida	4	4	4	4	4	5	6	6	6	6
Georgia	12	13	13	13	13	13	14	14	14	14
Idaho		3	3	3	3	3	4	4	4	4
Illinois	22	24	24	24	27	27	29	29	29	29
Indiana	15	15	15	15	15	15	15	15	15	15
Iowa	13	13	13	13	13	13	13	13	13	13
Kansas	9	10	10	10	10	10	10	10	10	10
Kentucky	13	13	12	13	13	13	13	13	13	13
Louisiana	8	8	8	8	9	9	10	10	10	10
Maine	6	6	6	6	6	6	6	6	6	6
Maryland	8	8	8	8	1	2	8	8	8	8
Massachusetts	14	15	15	15	16	16	18	18	18	18
Michigan	13	5	14	14	14	14	15	15	15	15
Minnesota	7	9	9	9	11	11	12	12	12	12
Mississippi	9	9	9	9	10	10	10	10	10	10
Missouri	16	17	17	17	18	18	18	18	18	18
Montana		3	3	3	3	3	4	4	4	4
Nebraska	5	8	8	8	8	8	8	8	8	8
Nevada	3	3	3	3	3	3	3	3	3	3
New Hampshire	4	4	4	4	4	4	4	4	4	4
New Jersey	9	10	10	10	12	12	14	14	14	14
New Mexico							3	3	3	3
New York	36	36	36	36	39	39	45	45	45	45
North Carolina	11	11	11	11	12	12	12	12	12	12
North Dakota		1	3	3	4	4	5	5	5	5
Ohio	23	1	23	23	23	23	24	24	24	24
Oklahoma							7	10	10	10
Oregon	3	3	4	4	4	4	5	5	5	5
Pennsylvania	30	32	32	32	34	34	38	38	38	38
Rhode Island	4	4	4	4	4	4	5	5	5	5
South Carolina	9	9	9	9	9	9	9	9	9	9
South Dakota		4	4	4	4	4	5	5	5	5
Tennessee	12	12	12	12	12	12	12	12	12	12
Texas	13	15	15	15	18	18	20	20	20	20
Utah			3	3	3	3	4	4	4	4
Vermont	4	4	4	4	4	4	4	4	4	4
Virginia	12	12	12	12	12	12	12	12	12	12
Washington		4	4	4	5	5	7	7	7	7
West Virginia	6	6	6	6	7	7	8	1	8	8
Wisconsin	11	12	12	12	12	13	13	13	13	13
Wyoming		3	3	3	3	3	3	3	3	3
Total	233 168	277 145 22	271 176	292 155	336 140	321 162	435 8 88	277 254	404 127	382 136 13

NOTE: For electoral votes by state in elections later than 1924, see preceding pages.

Qualifications for Voting in the 49 States

Source: Questionnaires to the states.

State	Minimum length of U. S. citizenship	Residence ¹			Literacy test	Poll tax ²
		State	County	District		
Alabama.....	1 yr.	6 mo.	3 mo. ³	Yes	\$1.50 ¹⁴
Alaska ⁷	1 yr.	.....	30 da.	.....	.....
Arizona.....	1 yr.	1 yr.	30 da.	30 da.	Yes	.....
Arkansas.....	1 yr.	6 mo.	30 da. ⁴	.....	1.00
California.....	90 da.	1 yr.	90 da.	54 da. ⁴	Yes	.....
Colorado.....	1 yr.	3 mo.	30 da. ⁵	.....	.....
Connecticut.....	1 yr.	.....	6 mo. ⁶	Yes	.....
Delaware.....	1 yr.	3 mo.	30 da.	Yes	.....
Florida.....	1 yr.	6 mo.	.....	.....	.....
Georgia ⁷	1 yr.	6 mo.	6 mo.	Yes	.....
Idaho.....	6 mo.	30 da.	.....	.....	.....
Illinois.....	1 yr.	3 mo.	30 da.	.....	.....
Indiana.....	6 mo.	2 mo. ⁹	30 da. ⁴	.....	.....
Iowa.....	6 mo.	60 da.	10 da. ⁴	.....	.....
Kansas.....	6 mo.	.....	30 da. ¹⁰	.....	.....
Kentucky.....	1 yr.	6 mo.	60 da. ⁴	.....	.....
Louisiana.....	1 yr.	1 yr. ¹¹	3 mo. ¹⁹	Yes	.....
Maine.....	6 mo.	.....	3 mo. ⁶	Yes	.....
Maryland.....	1 yr.	6 mo.	6 mo.	.....	.....
Massachusetts.....	1 yr.	.....	6 mo. ⁶	Yes	.....
Michigan.....	6 mo.	.....	30 da. ^{6,24}	.....	.....
Minnesota.....	3 mo.	6 mo.	.....	30 da.	.....	.....
Mississippi.....	2 yr.	1 yr.	.....	(15)	2.00
Missouri.....	1 yr.	2 mo.	2 mo. ⁶	.....	.....
Montana.....	1 yr.	30 da.	30 da. ⁹	.....	.....
Nebraska.....	6 mo.	40 da.	10 da.	.....	.....
Nevada.....	6 mo.	30 da.	10 da. ⁴	.....	.....
New Hampshire.....	6 mo.	.....	6 mo. ⁶	Yes	.....
New Jersey.....	6 mo.	60 da.	.....	.....	.....
New Mexico.....	1 yr.	3 mo.	30 da. ⁴	.....	.....
New York.....	90 da.	1 yr.	4 mo.	30 da.	Yes	.....
North Carolina.....	1 yr.	4 mo.	4 mo.	Yes	.....
North Dakota.....	1 yr.	3 mo.	30 da. ⁴	.....	.....
Ohio.....	1 yr.	40 da.	40 da. ⁴	.....	.....
Oklahoma.....	1 yr.	6 mo.	30 da. ⁴	.....	.....
Oregon.....	6 mo.	30 da. ²²	30 da. ^{4,22}	Yes	.....
Pennsylvania.....	1 mo.	1 yr. ¹³	.....	2 mo.	.....	.....
Rhode Island.....	1 yr.	1 yr.	.....	6 mo. ⁶	.....	.....
South Carolina.....	2 yr.	2 yr.	1 yr.	4 mo.	.....	(15)
South Dakota.....	5 yr.	1 yr.	3 mo.	30 da. ⁴	.....	.....
Tennessee.....	1 yr.	6 mo.	.....	.....	.....
Texas.....	1 yr.	6 mo.	.....	.....	1.75 ²¹
Utah.....	90 da.	1 yr.	4 mo.	60 da. ⁴	.....	.....
Vermont ²⁰	1 yr.	.....	3 mo. ^{6,16}	.....	.....
Virginia.....	1 yr.	6 mo. ¹⁸	30 da. ⁴	Yes	1.50
Washington.....	1 yr.	3 mo.	30 da. ¹⁷	Yes	.....
West Virginia.....	1 yr.	2 mo.	.....	.....	.....
Wisconsin.....	1 yr. ²³	.....	10 da.	.....	.....
Wyoming.....	1 yr.	60 da.	10 da.	(12)	.....

¹ Registration of all or part of the voters is required in most states. ² Annual levy. Although poll (or head) taxes are levied in several other states, those listed make payment of the tax a condition for voting. ³ Precinct or ward. ⁴ Precinct. ⁵ City or town, and 15 days in precinct. ⁶ City or town. ⁷ Minimum voting age in Alaska is 19, in Georgia it is 18, in all other states it is 21. ⁸ Precinct; 6 mo. in city or town. ⁹ Township. ¹⁰ Township or ward. ¹¹ Parish. ¹² Must be able to read, understand and/or write any section of state constitution. ¹³ 6 months if previously qualified elector or natural-born citizen of state. ¹⁴ 1953 act makes poll tax noncumulative except for 2 years preceding election in which elector offers to vote. ¹⁵ To qualify to vote for representatives to general assembly or states. ¹⁶ County, city, or town. ¹⁷ City, town, ward, or precinct. ¹⁸ Repealed in 1945. ¹⁹ Precinct, municipality 4 mo. ²⁰ A person must take freeman's oath as qualification for voting. ²¹ \$1.50 levied by state; 25 cents levied by most counties, but not all. ²² To vote for county officials requires 30 days residence in the county; for municipal officials, 30 days in the municipality. State residents may vote in national and state-wide elections without days local residence. ²³ Residents of less than one year may vote in presidential elections if eligible to vote elsewhere prior to moving. ²⁴ If person moves during 30-day period, he has to vote in old location.

Plurality and Majority

In order to win a plurality, a candidate must receive a greater number of votes than anyone running against him. If he receives 50 votes, for example, and two other candidates receive 40 and 2, he will have a plurality of one vote over his closest opponent. However, a candidate does not have a majority unless he receives more than 50% of the total votes cast. In the example above, the candidate does not have a majority, because his votes are less than 50% of the 101 votes cast.

Presidents and Vice Presidents of the U. S.

Presidents & (parties) ¹	Born	State of birth	Religion	Died	Term	Age at inaug.	Age at death	Vice Presidents ²	State of birth
1. Washington (F) ³	Feb. 22, 1732	Va.	Episcopalian	Dec. 14, 1799	1789-1797	57	67	1. John Adams	Mass.
2. J. Adams (F)	Oct. 30, 1735	Mass.	Unitarian	July 4, 1826	1797-1801	61	90	2. Thomas Jefferson ⁴	Va.
3. Jefferson (DR)	Apr. 13, 1743	Va.	Deist	July 4, 1826	1801-1809	57	83	3. Aaron Burr	N. Y.
4. Madison (DR)	Mar. 16, 1751	Va.	Episcopalian	June 28, 1836	1809-1817	57	85	4. George Clinton	N. Y.
5. Monroe (DR)	Apr. 28, 1758	Va.	Episcopalian	July 4, 1831	1817-1825	58	73	5. Elbridge Gerry ⁵	Mass.
6. J. Q. Adams (DR)	July 11, 1767	Mass.	Unitarian	Feb. 23, 1848	1825-1829	57	80	6. Daniel D. Tompkins	N. Y.
7. Jackson (DR)	Mar. 15, 1767	S. C.	Presbyterian	June 8, 1845	1829-1837	61	78	7. John C. Calhoun	S. C.
8. Van Buren (D)	Dec. 5, 1782	N. Y.	Reformed Dutch	July 24, 1862	1837-1841	54	79	8. Martin Van Buren	N. Y.
9. W. H. Harrison (W) ⁶	Feb. 9, 1773	Va.	Episcopalian	Apr. 4, 1841	1841-1841	68	68	9. Richard M. Johnson	Ky.
10. Tyler (W)	Mar. 29, 1790	Va.	Episcopalian	Jan. 18, 1862	1841-1845	51	71	10. John Tyler	Va.
11. Polk (D)	Nov. 2, 1795	N. C.	Methodist	June 15, 1849	1845-1849	49	53	11. George M. Dallas	Pa.
12. Taylor (W) ⁸	Nov. 24, 1784	Va.	Episcopalian	July 9, 1850	1849-1850	64	65	12. Millard Fillmore	N. Y.
13. Fillmore (W)	Jan. 7, 1800	N. Y.	Episcopalian	Mar. 8, 1874	1850-1853	50	74	13. William R. King ⁹	N. C.
14. Pierce (D)	Nov. 23, 1804	N. H.	Episcopalian	Oct. 8, 1869	1853-1857	48	64	14. John C. Breckinridge	Ky.
15. Buchanan (D)	Apr. 23, 1791	Pa.	Presbyterian	June 1, 1868	1857-1861	65	77	15. Hannibal Hamlin	Maine
16. Lincoln (R) ¹⁰	Feb. 12, 1809	Ky.	Liberal	Apr. 15, 1865	1861-1865	52	56	16. Andrew Johnson ¹¹	N. C.
17. Johnson (U) ¹¹	Dec. 29, 1808	N. C.	(U)	July 31, 1875	1865-1869	56	66	17. Schuyler Colfax	N. Y.
18. Grant (R)	Apr. 27, 1822	Ohio	Methodist	July 23, 1885	1869-1877	46	63	18. Henry Wilson ¹²	N. H.
19. Hayes (R)	Oct. 4, 1822	Ohio	Methodist	Jan. 17, 1893	1877-1881	54	70	19. William A. Wheeler	N. Y.
20. Garfield (R) ¹²	Nov. 19, 1831	Ohio	Disciples of Christ	Sept. 19, 1881	1881-1881	49	49	20. Chester A. Arthur	Vt.
21. Arthur (R)	Oct. 5, 1830	Vt.	Episcopalian	Nov. 18, 1886	1881-1885	50	56	21. Thomas A. Hendricks ¹³	Ohio
22. Cleveland (D)	Mar. 18, 1837	N. J.	Presbyterian	June 24, 1908	1885-1889	47	71	22. Levi P. Morton	Vt.
23. B. Harrison (R)	Aug. 20, 1833	Ohio	Presbyterian	Mar. 13, 1901	1889-1893	55	67	23. Adlai E. Stevenson	Ky.
24. Cleveland (D)	Jan. 29, 1843	Ohio	Methodist	Sept. 14, 1901	1893-1897	54	58	24. Garret A. Hobart ¹⁴	N. J.
25. McKinley (R) ¹⁴	Oct. 27, 1843	Ohio	Methodist	Sept. 14, 1901	1897-1901	54	58	25. Theodore Roosevelt	N. Y.
26. T. Roosevelt (R)	Oct. 27, 1858	N. Y.	Reformed Dutch	Jan. 6, 1919	1901-1909	42	60	26. Charles W. Fairbanks	Ohio
27. Taft (R)	Sept. 15, 1857	Ohio	Unitarian	Mar. 8, 1930	1909-1913	51	72	27. James S. Sherman ¹⁵	N. Y.
28. Wilson (D)	Dec. 28, 1856	Va.	Presbyterian	Feb. 3, 1924	1913-1921	56	67	28. Thomas R. Marshall	Ind.
29. Harding (R) ¹⁵	Nov. 2, 1865	Ohio	Baptist	Aug. 2, 1923	1921-1923	55	57	29. Calvin Coolidge	Vt.
30. Coolidge (R)	July 4, 1872	Vt.	Congregationalist	Jan. 5, 1933	1923-1929	51	60	30. Charles G. Dawes	Ohio
31. Hoover (R)	Aug. 10, 1874	Iowa	Quaker	Jan. 5, 1933	1929-1933	54	63	31. Charles Curtis	Kans.
32. F. D. Roosevelt (D) ¹⁶	Jan. 30, 1882	N. Y.	Episcopalian	Apr. 12, 1945	1933-1945	51	63	32. John N. Garner	Tex.
33. Truman (D)	May 8, 1884	Mo.	Baptist	.....	1945-1953	60	.....	33. Henry A. Wallace	Iowa
34. Eisenhower (R)	Oct. 14, 1890	Tex.	Presbyterian	.....	1953-	62	.....	34. Harry S. Truman	Mo.
								35. Alben W. Barkley	Ky.
								36. Richard M. Nixon	Calif.

Wives and Children of the Presidents of the United States

President	Wife's name	Year and place of wife's birth	Married	Wife Died	Children of President*	
					Sons	Daughters
Washington	Mrs. Martha Dandridge Custis	1732, Va.	1759	1802	..	..
John Adams	Abigail Smith	1744, Mass.	1764	1818	3	2
Jefferson	Mrs. Martha Wayles Skelton	1748, Va.	1772	1782	1	5
Madison	Mrs. Dorothy "Dolly" Payne Todd	1768, N. C.	1794	1849	..	..
Monroe	Eliza Kortright	1768, N. Y.	1786	1830	..	2
J. Q. Adams	Louisa Catherine Johnson	1775, England	1797	1852	3	1
Jackson	Mrs. Rachel Donelson Robards	1767, Va.	1791	1828	..	..
Van Buren	Hannah Hoes	1783, N. Y.	1807	1819	4	..
W. H. Harrison	Anna Symmes	1775, N. J.	1795	1864	6	4
Tyler	Letitia Christian	1790, Va.	1813	1842	3	4
	Julia Gardiner	1820, N. Y.	1844	1889	5	2
Polk	Sarah Childress	1803, Tenn.	1824	1891	..	..
Taylor	Margaret Smith	1788, Md.	1810	1852	1	5
Fillmore	Abigail Powers	1798, N. Y.	1826	1853	1	1
	Mrs. Caroline Carmichael McIntosh	1813, N. J.	1858	1881	..	..
Pierce	Jane Means Appleton	1806, N. H.	1834	1863	3	..
Buchanan	(Unmarried)	....	....	....	..	..
Lincoln	Mary Todd	1818, Ky.	1842	1882	4	..
Johnson	Eliza McCardle	1810, Tenn.	1827	1876	3	2
Grant	Julia Dent	1826, Mo.	1848	1902	3	1
Hayes	Lucy Ware Webb	1831, Ohio	1852	1889	7	1
Garfield	Lucretia Rudolph	1832, Ohio	1858	1918	5	2
Arthur	Ellen Lewis Herndon	1837, Va.	1859	1880	2	1
Cleveland	Frances Folsom	1864, N. Y.	1886	1947	2	3
B. Harrison	Caroline Lavinia Scott	1832, Ohio	1853	1892	1	1
	Mrs. Mary Scott Lord Dimmick	1858, Pa.	1896	1948	..	1
McKinley	Ida Saxton	1847, Ohio	1871	1907	..	2
T. Roosevelt	Alice Hathaway Lee	1861, Mass.	1880	1884	..	1
	Edith Kermit Carow	1861, Conn.	1886	1948	4	1
Taft	Helen Herron	1861, Ohio	1886	1943	2	1
Wilson	Ellen Louise Axson	1860, Ga.	1885	1914	..	3
	Mrs. Edith Bolling Galt	1872, Va.	1915	....	..	..
Harding	Mrs. Florence Kling DeWolfe	1860, Ohio	1891	1924	..	..
Coolidge	Grace Anna Goodhue	1879, Vt.	1905	1957	2	..
Hoover	Lou Henry	1875, Iowa	1899	1944	2	..
F. D. Roosevelt	Anna Eleanor Roosevelt	1884, N. Y.	1905	....	5	1
Truman	Bess Wallace	1885, Mo.	1919	....	..	1
Eisenhower	Mamie Geneva Doud	1896, Iowa	1916	....	2	..

* Includes children who died in infancy.

Annual Salaries of Federal Officials

Source: U. S. Department of the Treasury

President of the U. S.	\$100,000 ¹	Secretaries of the Army, Navy, Air Force.....	22,000
Vice President of the U. S.	35,000 ²	Senators and Representatives.....	22,500
Cabinet members.....	25,000	Speaker of the House.....	35,000 ³
Undersecretaries of executive departments.....	21,000 ³	Chief Justice of the Supreme Court.....	35,500
Deputy Secretary of Defense.....	22,500	Associate Justices of the Supreme Court.....	35,000

¹ Plus taxable \$50,000 for expenses and a nontaxable sum (not to exceed \$40,000 a year) for traveling and official entertainment expenses. ² Plus taxable \$10,000 for expenses. ³ Except Undersecretary of State, who receives \$22,500. NOTE: All salaries shown above are taxable.

Footnotes for Table on Preceding Page

¹ F—Federalist; DR—Democratic-Republican; D—Democratic; W—Whig; R—Republican; U—Union. ² Same party as President, except as indicated. ³ No party for first election. The party system in the U. S. made its appearance during Washington's first term. ⁴ Democratic-Republican. ⁵ Died in office Apr. 20, 1812. ⁶ Died in office Nov. 23, 1814. ⁷ Resigned Dec. 28, 1832, to become U. S. Senator. ⁸ Died in office. ⁹ Died in office Apr. 18, 1853. ¹⁰ Died in office (shot Apr. 14 by John Wilkes Booth). ¹¹ Died in office Nov. 22, 1875. ¹² Died in office (shot July 2 by Charles J. Guiteau). ¹³ Died in office Nov. 25, 1885. ¹⁴ Died in office (shot Sept. 6 by Leon F. Czolgosz). ¹⁵ Died in office Nov. 21, 1899. ¹⁶ Died in office Oct. 30, 1912. ¹⁷ The Republican National Convention of 1864 adopted the name Union party. It renominated Lincoln for President; for Vice President it nominated Johnson, a War Democrat. Although frequently listed as a Republican Vice President and President, Johnson undoubtedly considered himself strictly a member of the Union party. When that party broke apart after 1868, he returned to the Democratic party. ¹⁸ Johnson was not a professed church member; however, he admired the Baptist principles of church government.

BIOGRAPHIES OF THE PRESIDENTS

GEORGE WASHINGTON

was born February 22, 1732 (February 11, 1731/2, old style) in Westmoreland County, Virginia. He early trained as a surveyor; but in 1752 he was appointed adjutant in the Virginia militia, and for the next three years he took an active part in the wars against the French and Indians, serving as General Braddock's aide in the disastrous campaign against Fort Duquesne. In 1759 he resigned from the militia, married Martha Dandridge Custis, a widow, and settled down as a gentleman farmer at Mount Vernon.

As a militiaman, he had been exposed to the arrogance of the British officers, and his experience as a planter with British commercial restrictions increased his anti-British sentiment. He opposed the Stamp Act of 1765 and after 1770 became increasingly prominent in organizing resistance. A delegate to the Continental Congress, Washington was selected as commander in chief of the Continental Army and took command at Cambridge, Massachusetts, on July 3, 1775.

Inadequately supported and sometimes covertly sabotaged by the Congress, in charge of troops who were inexperienced, badly equipped and impatient of discipline, Washington conducted the war on the policy of avoiding major engagements with the British and wearing them down by harassing tactics. His able generalship, along with the French alliance and the growing weariness within Britain, brought the war to a conclusion with the surrender of Cornwallis at Yorktown on October 19, 1781.

The chaotic years under the Articles of Confederation led Washington to return to public life in the hope of promoting the formation of a strong central government. He presided over the Constitutional Convention and yielded to the universal demand that he serve as first President. In office, he sought to unite the nation in the service of establishing the authority of new government at home and abroad. Greatly distressed by the emergence of the Hamilton-Jefferson rivalry, he worked to maintain neutrality but actually sympathized more with Hamilton. Following his unanimous re-election in 1792, his second term was dominated by the Federalists. His Farewell Address rebuked party spirit and warned against foreign entanglements.

He died at Mt. Vernon on December 14, 1799. Tall, dignified and impressive, Washington gave a public impression of austerity, though he was capable of gaiety in private. His life was characterized by a

strict sense of duty to his people. The standard biographies are by Fitzpatrick, Ford, Hughes and Stephenson.

JOHN ADAMS

was born on October 30 (October 19, old style), 1735, at Braintree (now Quincy), Massachusetts. A Harvard graduate, he considered teaching and the ministry but finally turned to law and was admitted to the bar in 1758. He opposed the Stamp Act, served as lawyer for patriots indicted by the British and, by the time of the Continental Congresses, was in the vanguard of the movement for independence. In 1778 he went to France as commissioner. Subsequently he helped negotiate the peace treaty with Britain, and in 1785 became the U. S. envoy to London. Resigning in 1788, he was elected Vice President under Washington, and was re-elected in 1792.

Though a Federalist, Adams did not get along with Hamilton who sought to prevent his election to the presidency in 1796, and thereafter intrigued against his administration. Adams was chosen with 71 electoral votes to 68 for his closest competitor, Thomas Jefferson, who became Vice President. In 1798 Adams' independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists while, at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton elected Jefferson in 1800. Adams retired to his home in Quincy, Massachusetts. He later corresponded with Jefferson and they died on the same day, July 4, 1826.

Stout, somewhat vain and irascible, Adams was honest, fearless and essentially fair-minded. His *Defence of the Constitutions of Government of the United States* (1787) contains original and striking if conservative political ideas. He married Abigail Smith in 1764, and their life together was long and happy. The standard biographies are by Morse and Chinard.

THOMAS JEFFERSON

was born on April 13 (April 2, old style), 1743, at Shadwell in Goochland (now Albemarle) County, Virginia. A William and Mary graduate, he studied law but from the start showed an interest in science and philosophy. His literary skill and political clarity brought him to the forefront

of the revolutionary movement in Virginia. As delegate to the Continental Congress, he drafted the Declaration of Independence. In 1776 he entered the Virginia House of Delegates and initiated a comprehensive reform program for the abolition of feudal survivals in land tenure and the separation of church and state.

In 1779 he became governor, but constitutional limitations on his power combined with his own lack of executive energy caused an unsatisfactory administration, culminating in Jefferson's virtual abdication when the British invaded Virginia in 1781. He now retired to his beautiful home at Monticello, to his wife, Martha Wayles Skelton, whom he had married in 1772 and who died in 1782, and to his children.

Jefferson's *Notes on Virginia* (1784-85) illustrate his many-faceted interests, his limitless intellectual curiosity, his deep faith in agrarian democracy. Sent to Congress in 1783, he helped lay down the decimal system and drafted basic reports on the organization of the western lands. In 1785 he was appointed minister to France, where the Anglo-Saxon liberalism he had drawn from Locke was stimulated by contact with the thought which would soon ferment in the French Revolution. In 1789 Washington appointed him Secretary of State. While favoring the Constitution and a strengthened central government, Jefferson came to believe that Hamilton contemplated the establishment of a monarchy. Growing differences resulted in Jefferson's resignation on Dec. 31, 1793.

Elected Vice President in 1796, Jefferson continued to serve as spiritual leader of the opposition to Federalism, particularly to the repressive Alien and Sedition Acts. He was elected President in 1801 by the House of Representatives as a result of Hamilton's decision to throw the Federalist votes to him rather than to Aaron Burr, who had tied him in electoral votes. The purchase of Louisiana from France in 1803, though in violation of his earlier constitutional scruples, was the most notable act of his administration. Re-elected in 1804 with 162 electoral votes to 14 for the Federalist Charles C. Pinckney, Jefferson tried desperately during his second term to keep the United States out of the Napoleonic Wars in Europe, employing to this end the unpopular embargo policy.

After his retirement to Monticello in 1809, he developed his interest in education, founding the University of Virginia and watching its development with never-lagging interest. He died at Monticello on July 4, 1826. Tall, loose-jointed, a poor speaker, Jefferson had an enormous variety of interests and skills, ranging from education and science to architecture and music. Economically his conception of democracy presupposed an essentially rural

community of small freeholds; but his deep and abiding faith in the common man provides inspiration for future generations. The standard biographies are by Chinard, Bowers, Kimball, Randall and Malone.

JAMES MADISON

was born in Port Conway, Virginia, on March 16, 1751 (March 5, 1750/1, old style). A Princeton graduate, he joined the struggle for independence on his return to Virginia in 1771. In the seventies and eighties he was active both in state politics, where he championed the Jefferson reform program, and in the Continental Congress. He was influential in the Constitutional Convention as leader of the group favoring a strong central government and as recorder of the debates; and he subsequently wrote, in collaboration with Alexander Hamilton and John Jay, the *Federalist* papers to aid the campaign for the adoption of the Constitution.

In the new Congress, Madison soon emerged as the leader in the House of the men who opposed Hamilton's financial program and his pro-British leanings in foreign policy. Retiring from Congress in 1797, he continued active in Virginia and drafted the Virginia Resolution protesting the Alien and Sedition Acts. His intimacy with Jefferson made him natural choice for Secretary of State in 1801.

In 1809 Madison succeeded Jefferson as President, with 122 electoral votes to 47 for the Federalist, C. C. Pinckney, and 6 scattering. His attractive wife, Dolly Payne Todd, whom he married in 1794, brought a new social sparkle to the executive mansion. In the meantime, increasing tension with Britain culminated in the War of 1812—a war for which the United States was unprepared, and for which Madison lacked the executive talent to clear out incompetence and mobilize the nation's energies. Madison was re-elected in 1812, with 128 electoral votes to 89 for the Federalist, De Witt Clinton. In 1814 the British actually captured Washington and forced Madison to flee to Virginia.

In his domestic program, Madison capitulated to the Hamiltonian policies that he had resisted twenty years before, signing bills to establish a United States Bank and a higher tariff. Following his presidency, he remained in retirement in Virginia until his death on June 28, 1836. Small, wrinkled, unimpressive, Madison had an acute political intelligence but lacked executive force. The standard biographies are by Hunt, Brant and Rives.

JAMES MONROE

was born on April 28, 1758, in Westmoreland County, Virginia. A William and Mary graduate, he served in the army during

the first years of the Revolution and was wounded at Trenton. He then entered Virginia politics and later national politics under the sponsorship of Jefferson. In 1786 he married Eliza Kortright.

Fearing centralization, Monroe opposed the adoption of the Constitution and, as senator from Virginia, was highly critical of the Hamiltonian program. In 1794 he was appointed minister to France where his ardent sympathies with the Revolution exceeded the wishes of the State Department. A troubled diplomatic career ended with his recall in 1796. From 1799 to 1802 he was governor of Virginia. In 1803 Jefferson sent him to France to help negotiate the Louisiana Purchase and for the next few years he was active in various continental negotiations.

In 1808 Monroe flirted with the radical wing of the Republican party, which opposed Madison's candidacy; but the presidential boom came to naught and, after a brief term as governor of Virginia in 1811, Monroe accepted Madison's offer of the State Department. During the war he vainly sought a field command and served as Secretary of War from Sept., 1814, to Mar., 1815.

Elected President in 1816 with 183 electoral votes to 34 for the Federalist Rufus King, and re-elected without opposition in 1820, Monroe, the last of the Virginia dynasty, pursued the course of systematic tranquilization which won for his terms the name "the era of good feeling." He continued Madison's surrender to the Hamiltonian domestic program, signed the Missouri Compromise, acquired Florida and, with the able assistance of his Secretary of State, John Quincy Adams, promulgated the Monroe Doctrine in 1823, declaring against foreign colonization or intervention in the Americas. He died in New York City on July 4, 1831.

A sound man of medium abilities, Monroe possessed qualities of judgment rather than of leadership. The standard biographies are by Morgan, Gilman and Styron.

JOHN QUINCY ADAMS

was born on July 11, 1767, at Braintree (now Quincy), Massachusetts, the son of John Adams. He spent his early years in Europe with his father, graduated from Harvard and entered law practice. His anti-Jeffersonian newspaper articles won him political attention. In 1794 he became minister to the Netherlands, the first of several diplomatic posts which occupied him until his return to Boston in 1801. In 1797 he married Louisa Catherine Johnson.

In 1803 he was elected to the Senate, nominally as a Federalist, but his repeated displays of independence on such issues as the Louisiana Purchase and the embargo caused his party to compel his resignation

and ostracize him socially. In 1809 Madison rewarded him for his support of Jefferson by appointing him minister to St. Petersburg. He helped negotiate the Treaty of Ghent in 1814 and in 1815 became minister to London. In 1817 Monroe appointed him Secretary of State where he served with great distinction, gaining Florida from Spain without hostilities and playing an equal part with Monroe in formulating the Monroe Doctrine.

When no presidential candidate received a majority of electoral votes in 1824, Adams, with the support of Henry Clay, was elected by the House in 1825 over Andrew Jackson who had the original plurality. Adams had ambitious plans of government activity to foster internal improvements and promote the arts and sciences; but congressional obstructionism combined with his own unwillingness or inability to play the role of a politician meant that little was accomplished. Retiring to Quincy after his defeat in 1828, he was elected to the House of Representatives in 1831 where, though nominally a Whig, he pursued as ever an independent course. He led the fight to force Congress to receive anti-slavery petitions and fathered the Smithsonian Institution.

Stricken on the floor of the House, he died on February 23, 1848. Tactless, brusque, conscientious, a rough and savage debater, Adams spared neither himself nor his enemies. His long and detailed *Diary* gives a unique picture of the personalities and politics of the times. The standard biographies are by Morse and Clark.

ANDREW JACKSON

was born on March 15, 1767, in what is now generally agreed to be Waxhaw, South Carolina. After a turbulent boyhood as an orphan and a British prisoner, he moved west to Tennessee where he soon qualified for law practice but found time for such frontier pleasures as horse racing, cock-fighting and dueling. His marriage to Rachel Donelson Robards in 1791 was complicated by subsequent legal uncertainties about the status of her divorce. During the seventeen-nineties Jackson served in the Tennessee constitutional convention, the federal House of Representatives, the federal Senate and the Tennessee supreme court.

After some years as a country gentleman, living at the Hermitage near Nashville, Jackson in 1812 was given command of Tennessee troops sent against the Creeks. He defeated the Indians at Horseshoe Bend in 1814; subsequently he became a major general and won the Battle of New Orleans over veteran British troops though after the treaty of peace had been signed at Ghent. In 1818 General Jackson invaded Florida, captured Pensacola and hanged two Englishmen named Arbuthnot and

Ambrister, creating an international incident. A presidential boom began for him in 1821 and in its service he returned to the Senate (1823-25). Though he won a plurality of electoral votes in 1824, he lost in the House when Clay threw his strength to Adams; he won easily in 1828 by an electoral vote of 178 to 83.

As President, Jackson greatly expanded the power and prestige of the presidential office and carried through an unexampled program of domestic reform, vetoing the bill to extend the United States Bank, moving toward a hard-money currency policy and checking the program of federal internal improvements. He also vindicated federal authority against South Carolina with its doctrine of nullification and against France on the question of debts. The support given his policies by the workingmen of the East as well as by the farmers of the East, West and South resulted in his triumphant re-election in 1832 over Clay by an electoral vote of 219 to 49, with 8 scattering and 2 not cast.

After watching the inauguration of his hand-picked successor, Martin Van Buren, Jackson retired to the Hermitage where he maintained a lively interest in national affairs until his death on June 8, 1845. A tall, dignified man with a drawn and wrinkled face, Jackson has been endowed by partisan historians with a violence and rascality he appears not to have possessed. His great contribution was to adjust the presidential office and the democratic doctrines of Jefferson to the new situation created by the Industrial Revolution. The standard biographies are by James, Bassett and Parton.

MARTIN VAN BUREN

was born on December 5, 1782, at Kinderhook, New York. After graduating from the village school, he became a law clerk, entered practice in 1803 and soon became active in state politics as state senator and attorney general. In 1821 he was elected to the United States Senate. He threw the support of his efficient political organization, known as the Albany Regency, to William H. Crawford in 1824 and to Jackson in 1828. After leading the opposition to Adams' administration in the Senate, he served briefly as governor of New York and resigned to become Jackson's Secretary of State. He soon became in close personal terms with Jackson and played an important part in turning the Jacksonian program from the ones intended by his original Western backers.

In 1832 Van Buren became Vice President; in 1836, President, with an electoral vote of 170 against 124 scattered among our opponents. The Panic of 1837 overshadowed his term. He attributed it to

the overexpansion of the credit and favored the establishment of an independent treasury as repository for the federal funds. In 1840 he established a ten-hour day on public works. Defeated by Harrison in 1840, he was the leading contender for the Democratic nomination in 1844 until he publicly opposed immediate annexation of Texas and was subsequently beaten by the Southern delegations at the Baltimore convention. This incident increased his growing misgivings about the slave power.

After working behind the scenes among the antislavery Democrats, Van Buren joined in the movement which led to the Free-Soil party and became its candidate for President in 1848. He subsequently returned to the Democratic party while continuing to object to its pro-Southern policy. He died in Kinderhook on July 24, 1862. His *Autobiography* throws valuable sidelights on the political history of the times.

Small, erect, dapper, Van Buren had a reputation for slick politicking which won him such sobriquets as the Little Magician and the Red Fox of Kinderhook; but, as his later career showed, he was capable of taking firm and unpopular stands on public issues. His wife Hannah Hoes, whom he married in 1807, died in 1819.

The standard biographies are by Shepard and Lynch.

WILLIAM HENRY HARRISON

was born in Charles City County, Virginia, on February 9, 1773. Joining the army in 1791, he was active in Indian fighting in the Northwest, became secretary of the Northwest Territory in 1798 and governor of Indiana in 1800. He married Anna Symmes in 1795. Growing discontent over white encroachments on Indian lands led to the formation of an Indian alliance under Tecumseh to resist further aggressions. In 1811 Harrison won a nominal victory over the Indians at Tippecanoe and in 1813 a more decisive one at the Battle of the Thames, where Tecumseh was killed.

After resigning from the army in 1814, Harrison had an obscure career in politics and diplomacy, ending up in twenty years as a county recorder in Ohio. Nominated for President in 1835 as a military hero whom the conservative politicians hoped to be able to control, he ran surprisingly well against Van Buren in 1836. Four years later he defeated Van Buren by an electoral vote of 234 to 60 but caught pneumonia and died in Washington a month after his inauguration, April 4, 1841. Harrison's qualities were those of a soldier rather than of a statesman or political leader. The standard biographies are by Cleaves and Goebel.

JOHN TYLER

was born in Charles City County, Virginia, on March 29, 1790. A William and Mary graduate, he entered law practice and politics, serving in the House of Representatives (1816-21) and later as governor of Virginia (1825-27), and as senator. A thorough-going strict constructionist, he supported Crawford in 1824 and Jackson in 1828 but broke with Jackson over his Bank policy and became a member of the Southern state-rights group which co-operated with the Whigs. In 1836 he resigned from the Senate rather than follow instructions from the Virginia legislature to vote for a resolution expunging censure of Jackson from the Senate record.

Elected Vice President on the Whig ticket in 1840, Tyler succeeded to the presidency on Harrison's death. His strict-constructionist views soon caused a split with the Henry Clay wing of the Whig party and a stalemate on domestic questions. Tyler's more considerable achievements were his support of the Webster-Ashburton Treaty with Britain and his success in bringing about the annexation of Texas through joint congressional resolution.

After his presidency he lived in retirement in Virginia until the outbreak of the Civil War when he emerged briefly as chairman of a peace convention and then as delegate to the provisional Congress of the Confederacy. He died on January 18, 1862. He was married first to Letitia Christian March in 1813 and, two years after her death in 1842, to Julia Gardiner. Witty, amiable, courteous, Tyler was a Virginia gentleman whose presidency was hamstrung by the basic contradiction between his own ideas and those of the party which put him on the ticket as Vice President. The standard biographies are by Chitwood and Tyler.

JAMES KNOX POLK

was born in Mecklenburg County, North Carolina, on November 2, 1795. A graduate of the University of North Carolina, he moved west to Tennessee, was admitted to the bar and soon became prominent in state politics. In 1825 he was elected to the House of Representatives where he opposed Adams and, after 1829, became Jackson's floor leader in the fight against the Bank. In 1835 he became Speaker of the House. In 1839 he was elected governor of Tennessee but was beaten in tries for re-election in 1841 and 1843.

The supporters of Van Buren for the Democratic nomination in 1844 counted on Polk as his running mate; but, when Van Buren's stand on Texas alienated Southern support, the convention swung to Polk on the ninth ballot. He was elected over Henry Clay, the Whig candidate, by an

electoral vote of 170 to 105. Rapidly disillusioning those who thought that he would not run his own administration, Polk proceeded steadily and precisely to achieve four major objectives—the acquisition of California, the settlement of the Oregon question, the reduction of the tariff and the establishment of the independent treasury. He also enlarged the Monroe Doctrine to exclude all non-American intervention in American affairs, whether forcible or not; and he forced Mexico into a war which he waged to a successful conclusion. His wife Sarah Childress, whom he married in 1824, was a woman of charm and ability. Polk died in Nashville, Tennessee, on June 15, 1849.

Serious, hardworking, lacking in color, Polk has long been underrated by historians who mistakenly regarded him as a slaveholders' puppet; in fact, few presidents have so thoroughly controlled their own administration or have so ably accomplished the purposes they set for themselves. Polk's *Diary* reflects the mood and problems of his presidency. The standard biography is by McCormac.

ZACHARY TAYLOR

was born at Montebello, Orange County, Virginia, on November 24, 1784. Embarking on a military career in 1808, Taylor fought in the War of 1812, the Black Hawk War and the Seminole War, holding in between garrison jobs on the frontier or desk jobs in Washington. A brigadier general as a result of his victory over the Seminoles at Lake Okeechobee (1837), Taylor held a succession of Southwestern commands and in 1846 established a base on the Rio Grande, where his forces engaged in hostilities which precipitated the war with Mexico. He captured Monterrey in Sept., 1846, and, disregarding Polk's orders to stay on the defensive, defeated Santa Anna at Buena Vista in February, 1847, ending the war in the northern provinces.

Though Taylor had never cast a vote for President, his party affiliations were Whiggish, and his availability was increased by his difficulties with Polk. He was elected President over the Democrat Lewis Cass by an electoral vote of 163 to 127. During the revival of the slavery controversy, which was to result in the Compromise of 1850, Taylor began to take an increasingly firm stand against appeasing the South; but he died in Washington on July 9, 1850, in the midst of the fight over the Compromise. He married Margaret Mackall Smith in 1810. His bluff and simple soldierly qualities won him the name of Old Rough and Ready. During his brief term as President he displayed a growing insight into political questions. The standard biographies are by Hamilton and by Bent and McKinley.

MILLARD FILLMORE

was born at Locke, Cayuga County, New York, on January 7, 1800. A lawyer, he entered politics as an Antimason under the sponsorship of Thurlow Weed, editor and party boss, and subsequently followed Weed into the Whig party. He served in the House of Representatives (1833-35 and 1837-43) and played a leading role in writing the tariff of 1842. Defeated for governor of New York in 1844, he became comptroller in 1848, was put on the Whig ticket with Taylor as a concession to the Clay wing of the party and became President upon Taylor's death in 1850.

As President, Fillmore broke with Weed and William H. Seward and associated himself with the pro-Southern Whigs, supporting the Compromise of 1850. Defeated for the Whig nomination in 1852, he ran for President in 1856 as candidate of the American or Know-Nothing party, which sought to unite the country against foreigners in the alleged hope of diverting it from the explosive slavery issue. Fillmore opposed Lincoln during the Civil War. He died in Buffalo on March 8, 1874. He was married in 1826 to Abigail Powers, who died in 1853, and in 1858 to Caroline Carmichael McIntosh. Urbane, gracious, colorless and weak, Fillmore was an undistinguished President. The standard biography is by Griffiths.

FRANKLIN PIERCE

was born at Hillsboro, New Hampshire, on November 23, 1804. A Bowdoin graduate and lawyer, he won rapid political advancement in the Democratic party, in part because of the prestige of his father, Governor Benjamin Pierce. By 1831 he was Speaker of the New Hampshire House of Representatives; from 1833 to 1837 he served in the federal House and from 1837 to 1842 in the Senate. His wife, Jane Means Appleton, whom he had married in 1834, disliked Washington and the somewhat dissipated life led by Pierce; and in 1842 Pierce, resigning from the Senate, took up a successful law practice in Concord, New Hampshire.

During the Mexican War Pierce was a brigadier general. Thereafter he continued to oppose antislavery tendencies within the Democratic party. As a result, he was the Southern choice to break the deadlock at the Democratic convention of 1852 and was nominated on the 49th ballot. Pierce rolled up 254 electoral votes to 42 for Winfield Scott, the Whig candidate.

As President, Pierce followed a course of appeasing the South at home and of playing with schemes of territorial expansion abroad. The failure of both his foreign and domestic policies prevented his renomination; and he died in Concord, New Hampshire, on October 8, 1869, in relative ob-

scurity. A kindly and courteous person, Pierce was weak, unstable and lacking in presidential qualities. The standard biography is by Nichols.

JAMES BUCHANAN

was born near Mercersburg, Pennsylvania, on April 23, 1791. A Dickinson graduate and a lawyer, he entered Pennsylvania politics as a Federalist. With the disappearance of the Federalist party, he became a Jacksonian Democrat. He served with ability in the House (1821-31), as minister to St. Petersburg (1832-33) and in the Senate (1834-45), and in 1845 became Polk's Secretary of State. Disappointed in the presidential nomination in 1852, Buchanan became minister to Britain in 1853 where he participated with other American diplomats in Europe in drafting the expansionist Ostend Manifesto.

In 1856 Buchanan received the Democratic nomination and won the election, gaining 174 electoral votes to 114 for John C. Frémont, the Republican candidate, and 8 for Millard Fillmore, American party. The growing crisis over slavery presented Buchanan with problems he lacked the will to tackle. His appeasement of the South alienated the Stephen Douglas wing of the Democratic party without reducing Southern militancy on slavery issues. While denying the right of secession, Buchanan also denied that the federal government could do anything about it. He supported the administration during the Civil War and died in Lancaster, Pennsylvania, on June 1, 1868.

The only President to remain a bachelor throughout his term, Buchanan used his charming niece Harriet Lane as White House hostess. Legalistic, indecisive and timorous as President, Buchanan filled his other public offices capably. The standard biography is by Curtiss.

ABRAHAM LINCOLN

was born in Hardin (now Larue) County, Kentucky, on February 12, 1809. His family moved to Indiana and then to Illinois, and Lincoln gained what education he could along the way. While reading law, he worked in a store, managed a mill, surveyed, and split rails. In 1834 he went to the state legislature as a Whig and became the party's floor leader. For the next twenty years he remained in law practice in Springfield, except for a single term (1847-49) in Congress where he denounced the Mexican War. In 1855 he was a candidate for senator and in 1856 he joined the new Republican party.

A leading but unsuccessful candidate for the vice-presidential nomination with Frémont, Lincoln gained national attention in 1858 when, as Republican candidate for

senator from Illinois, he engaged in a series of debates with Stephen A. Douglas, the Democratic candidate. He lost the senatorial election, but continued to prepare the way for the 1860 Republican convention and was rewarded with the presidential nomination on the third ballot. He polled 180 electoral votes, as against the 123 of his three opponents, but had only a plurality of the popular vote.

From the start, Lincoln made clear that, unlike Buchanan, he believed the national government had the power to crush the rebellion. Not an abolitionist, he held the slavery issue subordinate to that of preserving the Union but soon perceived that the war could not be brought to a successful conclusion without freeing the slaves. His administration was hampered by the incompetence of many Union generals, the inexperience of the troops and the harassing political tactics both of the Republican Radicals, who favored a hard policy toward the South, and the Democratic Copperheads, who desired a negotiated peace. The Gettysburg Address of November 19, 1863, marks the high point in the record of American eloquence. His patient search for a winning combination finally brought Generals Ulysses S. Grant and William T. Sherman to the top; and their series of victories in 1864 dispelled the mutterings from both Radicals and Peace Democrats which at one time seemed to threaten Lincoln's re-election. He received 212 electoral votes to 21 for George B. McClellan, the Democratic candidate. His inaugural address urged leniency toward the South: "With malice toward none, with charity for all . . . let us strive on to finish the work we are in; to bind up the nation's wounds . . ." This policy aroused growing opposition on the part of the Republican Radicals, but Lincoln was shot by John Wilkes Booth at Ford's Theater, Washington, on April 14, 1865, before the matter could be put to test. He died the following day.

Lincoln's marriage to Mary Todd in 1842 was often unhappy and turbulent, in part because of his wife's pronounced instability. By his remarkable literary artistry, his essential patience and devotion, his profound sense of the importance of government by, for and of the people, by the manner of his life and of his death, Lincoln has won a unique place in the hearts of Americans. The standard biographies are by Sandburg, Herndon, Nicolay and Hay.

ANDREW JOHNSON

was born at Raleigh, North Carolina, on December 29, 1808. Self-educated, he became a tailor in Greeneville, Tennessee, but soon went into politics where he rose steadily. From 1843 to 1853 he served in the House of Representatives, 1853-57 as governor of Tennessee and in 1857 was

elected Senator. Politically he was a Jacksonian Democrat, and his specialty was the fight for a more equitable land policy. Alone among the Southern Senators, he stood by the Union during the Civil War. In 1862 he became war governor of Tennessee and carried out a thankless and difficult job with great courage. Johnson became Lincoln's running mate in 1864 as result of an attempt to give the ticket a nonpartisan and nonsectional character. Succeeding to the presidency on Lincoln's death, Johnson sought to carry out his policy but without his political skill. The result was a hopeless conflict with the Radical Republicans who dominated Congress, passed measures over Johnson's vetoes and attempted to limit the power of the executive concerning appointments and removals. The conflict culminated with Johnson's impeachment for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.

After his presidency, Johnson maintained an interest in politics and in 1875 was elected to the Senate. He died near Carter Station, Tennessee, on July 31, 1875. He married Eliza McCauley in 1827. An honest, courageous and intelligent man, Johnson lacked the tact, patience and self-control to be an effective President.

The standard biographies are by Winston, Stryker and Milton.

ULYSSES SIMPSON GRANT

was born (as Hiram Ulysses Grant) at Point Pleasant, Ohio, on April 27, 1822. He finished West Point in 1843 and served without particular distinction in the Mexican War. In 1848 he married Julia Dent. He resigned from the army in 1854, following warnings from his commanding officer about his drinking habits, and for the next six years held a wide variety of jobs in the Middle West. With the outbreak of the Civil War, he sought a command and soon, to his surprise, was made a brigadier general. His continuing successes in the western theaters, culminating in the capture of Vicksburg in 1863, brought him national fame and soon the command of all the Union armies. His dogged, implacable policy of concentrating on dividing and destroying the Confederate armies brought the war to an end in 1865. In 1866 he was made full general.

Grant's relations with Johnson grew steadily worse; and in 1868, as the Republican candidate for President, Grant was elected with 214 electoral votes to 80 for the Democrat Horatio Seymour. From the start Grant showed his unfitness for the office. His cabinet was weak, his do-

mestic policy was confused, many of his intimate associates were corrupt. The notable achievement in foreign affairs was the settlement of controversies with Great Britain in the Treaty of London (1871), negotiated by his able Secretary of State, Hamilton Fish.

Nominated for a second term, he defeated Horace Greeley, the Democratic and Liberal Republican candidate, 286 votes to 63. The Panic of 1873 created difficulties for his second term.

After retiring from office, Grant toured Europe for two years and returned in time to accede to a third-term boom, but was beaten in the convention of 1880. Illness and bad business judgment darkened his last years, but he worked steadily at the *Personal Memoirs* which were to be so successful when published after his death at Mount McGregor, near Saratoga, New York, on July 23, 1885. Inarticulate, taciturn, loyal to his friends, he was an able general who should never have accepted the presidency. The standard biographies are by Hesseltine and Woodward.

RUTHERFORD BIRCHARD HAYES

was born at Delaware, Ohio, on October 4, 1822. A graduate of Kenyon College and the Harvard Law School, he practiced law in Sandusky and then in Cincinnati, Ohio. In 1852 he married Lucy Webb. A Whig, he joined the Republican party in 1855. During the Civil War he rose to the rank of major general. He served in Congress from 1865 to 1867 and then confirmed a reputation for honesty and efficiency in two terms as governor of Ohio. His re-election as governor in 1875 made him the logical candidate for those Republicans who wished to stop James G. Blaine in 1876, and he was successfully nominated.

The result of the election was for some time in doubt and hinged upon disputed returns from South Carolina, Louisiana, Florida and Oregon. Samuel J. Tilden, the Democratic candidate, had the larger popular vote but was adjudged by the strictly partisan decisions of the Electoral Commission to have one less electoral vote, 185 to 184. The national acceptance of this result was due in part to the general understanding that Hayes would pursue a conciliatory policy toward the South. He withdrew the troops from the South, took a conservative position on financial and labor issues and urged civil service reform.

Hayes served only one term by his own wish and spent the rest of his life in various humanitarian endeavors. He died in Fremont, Ohio, on January 17, 1893. A hard-working, conscientious, sensible man, Hayes represented the best type of Republican of his day. The standard biographies are by Eckenrode and Williams.

JAMES ABRAM GARFIELD,

the last President to be born in a log cabin, was born at Cuyahoga County, Ohio, on November 19, 1831. A Williams graduate, he taught school for a time and entered Republican politics in Ohio. In 1858 he married Lucretia Rudolph. During the Civil War he had a promising career, rising to the rank of major general of volunteers; but in 1863 he was elected to the House of Representatives where he served until 1880. His oratorical and parliamentary abilities soon made him the leading Republican in the House, though his record was marred by his unorthodox acceptance of a fee in the DeGolyer paving contract case and by suspicions of his complicity in the Crédit Mobilier scandal.

In 1880 Garfield was elected to the Senate, but, instead became the presidential candidate on the 36th ballot as a result of a deadlock in the Republican convention. He gained 214 electoral votes to 155 for General Winfield Scott Hancock, the Democratic candidate. Garfield's administration was barely under way when he was shot by Charles J. Guiteau, a disappointed office seeker, in July. He died in Elberon, New Jersey, on September 19, 1881. An attractive and eloquent man, he was much beloved in his day.

The standard biographies are by Smith and Caldwell.

CHESTER ALAN ARTHUR

was born at Fairfield, Vermont, on October 5, 1830. A graduate of Union College, he became a successful New York lawyer. In 1859 he married Ellen Herndon. During the Civil War he held administrative jobs in the Republican state administration and in 1871 was appointed collector of the Port of New York by Grant. This post gave him control over considerable patronage; and, though not personally corrupt, Arthur managed his power in the interests of the New York machine so openly that President Hayes in 1877 called for an investigation, and in 1878 Arthur was suspended from his responsibilities.

In 1880 Arthur was nominated for Vice President in the hope of conciliating the followers of Grant and the powerful New York machine. As President on Garfield's assassination, Arthur, stepping out of his familiar role as spoilsman, backed civil service reform, reorganized the cabinet and prosecuted political associates accused of post office graft. Losing machine support and failing to gain the reformers, he was not renominated. He died in New York City on November 18, 1886. A tall, handsome, dignified man with real administrative abilities, he was a better President than his previous record promised. The standard biography is by Howe.

STEPHEN GROVER CLEVELAND

was born at Caldwell, New Jersey, on March 18, 1837. He was admitted to the bar in Buffalo, New York, in 1859 and lived there as a lawyer, with occasional incursions into Democratic politics, for more than twenty years. He did not participate in the Civil War. As mayor of Buffalo in 1881, he carried through a reform program so ably that the Democrats ran him successfully for governor in 1882. In 1884 he won the Democratic nomination for President. The campaign contrasted Cleveland's spotless public career with the uncertain record of James G. Blaine, the Republican candidate, and Cleveland received enough Mugwump (independent Republican) support to win by 219 to 182 electoral votes.

As President, Cleveland pushed civil service reform, opposed the pension grab and attacked the high tariff rates. While in the White House he married Frances Folsom (1886). Renominated in 1888, Cleveland was defeated by Benjamin Harrison, polling more popular but fewer electoral votes. In 1892 he was re-elected over Harrison, 277 to 145, with 22 votes for James B. Weaver, the Populist candidate. When the Panic of 1893 burst upon the country, Cleveland's attempts to solve it by sound-money measures alienated the free-silver wing of the party, while his tariff policy alienated the protectionists. In 1894 he sent troops to break the Pullman strike. In foreign affairs his firmness caused Great Britain to back down in the Venezuela border dispute.

In his last years Cleveland was an active and much respected public figure. He died in Princeton, New Jersey, on June 24, 1908. An honest, stubborn, high-principled man, Cleveland was an old-fashioned liberal in the nineteenth-century sense who was baffled by the new problems of industrial society. The standard biographies are by Nevins and McElroy.

BENJAMIN HARRISON

was born in North Bend, Ohio, on August 20, 1833, the grandson of William Henry Harrison. A graduate of Miami University, he took up the law in Indiana and became active in Republican politics. In 1853 he married Caroline Lavinia Scott. During the Civil War he rose to the rank of brigadier general. A sound-money Republican, he was elected senator from Indiana in 1880 and in 1888 received the Republican nomination for President on the 8th ballot. Though behind on the popular vote, he won over Grover Cleveland in the electoral college by 233 to 168.

As President, Benjamin Harrison failed to please either the bosses or the reform element in the party. In foreign affairs he backed Secretary of State Blaine whose policy foreshadowed later American im-

perialism. In 1892 Harrison was renominated, but Cleveland beat him in the election. His wife died in the White House in 1892, and Harrison married her niece, Mary Scott (Lord) Dimmick, in 1896. After his presidency, he resumed law practice. He died in Indianapolis, Indiana, on March 13, 1901. Harrison was an honest man of very medium abilities.

WILLIAM MCKINLEY

was born in Niles, Ohio, on January 28, 1843. A graduate of Allegheny College, he rose from the ranks to become a major in the Civil War. Subsequently he opened a law office in Canton, Ohio, and in 1871 married Ida Saxton. Elected to Congress in 1876, he served there steadily till 1891 except for 1883-85. His faithful advocacy of business interests culminated in the passage of the highly protective McKinley Tariff of 1890. With the support of Mark Hanna, a shrewd Cleveland businessman interested in safeguarding tariff protection, McKinley became governor of Ohio in 1892 and Republican presidential candidate in 1896. The business community, alarmed by the progressivism of William Jennings Bryan, the Democratic candidate, spent considerable money to assure McKinley's victory which was by the margin of 271 to 176 in the electoral college.

The chief event of McKinley's administration was the war with Spain which resulted in our acquisition of the Philippines and other islands. With imperialism as an issue, McKinley defeated Bryan again in the election of 1900 by 292 to 155. On September 6, 1901, he was shot at Buffalo by Leon F. Czolgosz, an anarchist, and he died there on September 14.

The standard biography is by Olcott.

THEODORE ROOSEVELT

was born in New York City on October 27, 1858. A Harvard graduate, he was early interested in ranching, in politics and in writing picturesque historical narratives. He was a Republican member of the New York Assembly in 1882-84, an unsuccessful candidate for mayor of New York in 1886, a U. S. Civil Service Commissioner under Harrison, Police Commissioner of New York City in 1895 and Assistant Secretary of the Navy under McKinley in 1897. After exuding a belligerence which helped bring on the war with Spain, he resigned in 1898 to help organize a volunteer regiment named the Rough Riders and take a more direct part in the war. Always publicity-shrewd, he won the New York gubernatorial nomination in 1898 in spite of pronounced lack of enthusiasm on the part of the bosses.

After two years of T.R. in Albany, the New York bosses succeeded in getting him the vice-presidential nomination in 1900

Roosevelt accepted it with reluctance, feeling that his career had been ruined. As President on McKinley's assassination, he perceived the new popular mood of progressivism and initiated a policy of trust busting, designed to control giant corporations. He also strengthened government powers over interstate commerce and launched a conservation program to save natural resources. In foreign affairs he pursued a truculent policy, permitting the instigation of a revolt in Panamá to dispose of Colombian objections to the Panama Canal and helping to maintain the balance of power in the East by bringing the Russo-Japanese war to an end. In 1904 he decisively defeated Alton B. Parker, his conservative Democratic opponent, by an electoral margin of 336 to 140.

Following his second term he went big-game hunting in Africa and toured Europe. On his return to the United States, his increasing coldness toward Taft led him to overlook his earlier disclaimer of third-term ambitions and to re-enter politics. Defeated by the machine in the Republican convention of 1912, he organized the Progressive party and polled more votes than Taft, though the split brought about the election of Wilson. From 1915 on, Roosevelt strongly favored intervention in the European war. He became deeply embittered at Wilson's refusal to allow him to raise a volunteer division. He died in Oyster Bay, New York, on January 6, 1919. He was married twice: in 1880 to Alice Hathaway Lee, who died in 1884; and in 1886 to Edith Kermit Carow.

The athletic advocate of the strenuous life, with his high voice, prominent teeth and thick glasses, Roosevelt captured the imagination of the American people. He was one of the great personalities of American history. The standard biography is by Pringle.

WILLIAM HOWARD TAFT

was born in Cincinnati, Ohio, on September 15, 1857. A Yale graduate, he entered Ohio Republican politics in the eighteen eighties. In 1886 he married Helen Herron. From 1887 to 1890, he served on the Ohio superior court; 1890-92, as solicitor general of the United States; 1892-1900, on the federal circuit court. In 1900 McKinley appointed him president of the Philippine Commission and in 1901 governor general. Taft had great success in pacifying the Filipinos, solving the problem of the church lands, improving economic conditions and establishing limited self-government. His period as Secretary of War 1904-08 further demonstrated his capacity as administrator and conciliator; and he was Roosevelt's hand-picked successor in 1908.

In the election he polled 321 electoral votes to 162 for William Jennings Bryan.

As President, though he carried on many of Roosevelt's policies, Taft got into increasing trouble with the progressive wing of the party and displayed mounting irritability and indecision. After his defeat in 1912, he became professor of constitutional law at Yale. In 1921 he was appointed Chief Justice of the United States. He died in Washington on March 8, 1930. Enormously large, deliberate and good-humored, Taft excelled as an administrator and judge, not as a political leader.

The standard biography is by Pringle.

THOMAS WOODROW WILSON

was born in Staunton, Virginia, on December 28, 1856. A Princeton graduate, he turned from law practice to post-graduate work in political science at Johns Hopkins University, receiving his Ph.D. in 1886. He taught at Bryn Mawr, Wesleyan and Princeton, and in 1902 was made president of Princeton. After an unsuccessful attempt to democratize the social life of Princeton, he welcomed an invitation in 1910 to be the Democratic gubernatorial candidate in New Jersey. His success in fighting the machine and putting through a reform program attracted national attention.

In 1912, after a protracted contest at Baltimore, Wilson won the Democratic nomination on the 46th ballot. In the election he received 435 electoral votes to 88 for Roosevelt and 8 for Taft. During his first term Wilson proceeded under the standard of the New Freedom to enact a program of domestic reform, including the Federal Reserve Act, the Clayton Anti-trust Act, the establishment of the Federal Trade Commission and other measures designed to restore competition in the face of the great monopolies. In foreign affairs, while privately sympathetic with the Allies, he strove to maintain strict neutrality in the European war and warned both sides against encroachments on American interests.

Re-elected in 1916 as a peace candidate, he tried to mediate between the warring nations; but, when the Germans resumed unrestricted submarine warfare in 1917, Wilson brought the United States into what he now believed was a war to make the world safe for democracy. He supplied the classic formulations of Allied war aims; and the armistice of November, 1918, was negotiated on the basis of Wilson's Fourteen Points. In 1919 he strove at Versailles to lay the foundations for enduring peace. He accepted the imperfections of the Versailles Treaty in the expectation that they could be remedied by action within the

League of Nations. He probably could have secured ratification of the treaty if he had adopted a more conciliatory attitude toward the mild reservationists; but his insistence on all or nothing eventually caused the diehard isolationists and diehard Wilsonites to unite in rejecting a compromise.

In September, 1919, Wilson suffered a paralytic stroke which limited his future activity. After the presidency he lived on in retirement in Washington, dying February 3, 1924. He was married twice—in 1885 to Ellen Louise Axson, who died in 1914, and in 1915 to Edith Bolling Galt. A man of high principle, inspiring eloquence and great intellectual ability, Wilson was the first leader to fire the imagination of the masses of the world with the vision of world peace. The standard biography is by Baker.

WARREN GAMALIEL HARDING

was born in Morrow County, Ohio, on November 2, 1865. After attending Ohio Central College, Harding became interested in journalism and in 1884 bought the *Marion (Ohio) Star*. In 1891 he married a wealthy widow, Florence Kling De Wolfe. As his paper prospered, he entered Republican politics, serving as state senator (1899–1903), and as lieutenant governor (1904–06). In 1910 he was defeated for governor but in 1914 was elected to the Senate. His reputation as orator made him keynoter in the 1916 convention.

When the 1920 Republican convention was deadlocked between Leonard Wood and Frank O. Lowden, Harding was made the dark-horse nominee on his solemn affirmation that there was no reason in his past that he should not be. Straddling the League question, Harding was elected easily, with 404 electoral votes to 127 for James M. Cox, his Democratic opponent. His cabinet contained some able men, but also some manifestly unfit for public office. Harding's own intimates were mediocre when they were not corrupt. The impending disclosure of scandals in the Interior and Justice departments and in the Veterans' Bureau, as well as political setbacks, profoundly worried him. On his return from Alaska in 1923, he died suddenly at San Francisco on August 2. A handsome and genial man, undiscriminating in his associates, lacking in political ideas or fortitude, Harding was totally unfitted for the presidency.

JOHN CALVIN COOLIDGE

was born in Plymouth, Vermont, on July 4, 1872. An Amherst graduate, he went into law practice at Northampton, Massachusetts, in 1897. He married Grace Anna Goodhue in 1905. He entered Republican

state politics, becoming successively mayor of Northampton, state senator, lieutenant governor and, in 1919, governor. His conduct in regard to the Boston police strike in 1919 won him a somewhat undeserved reputation for decisive action and brought him the Republican vice-presidential nomination in 1920. After Harding's death Coolidge handled the Washington scandals with care and finally managed to save the Republican party from public blame for the widespread corruption.

In 1924 Coolidge won re-election without difficulty, getting 382 electoral votes to 136 for the Democrat, John W. Davis, and 13 for Robert M. La Follette running on the Progressive ticket. His second term, like his first, was characterized by a general satisfaction with the existing economic order. He stated that he did not choose to run in 1928.

After his presidency, Coolidge lived quietly in Northampton, writing an unilluminating *Autobiography* and conducting a syndicated column. He died in Northampton, Massachusetts, on January 5, 1933. His dry, Yankee humor, his frugality and glumness made him a paradoxically popular President in the boom period. The standard biographies are by White and Fuess.

HERBERT CLARK HOOVER

was born at West Branch, Iowa, an August 10, 1874. A Stanford graduate, he worked from 1895 to 1913 as a mining engineer and consultant in North America, Europe, Asia, Africa and Australia. In 1899 he married Lou Henry. During the First World War he served with distinction as chairman of the American Relief Committee in London, as chairman of the Commission for Relief in Belgium and as United States Food Administrator. His political affiliations were still sufficiently indeterminate for him to be mentioned as a possibility for both Republican and Democratic nominations in 1920; but after the election he served both Harding and Coolidge as Secretary of Commerce.

In the election of 1928 Hoover received 444 electoral votes to 87 for Alfred E. Smith, the Democratic candidate. He soon faced the worst depression in the nation's history; but his attacks upon it were hampered by his devotion to the theory that the forces which brought the crisis would soon bring the revival, and then by his belief that in too many areas the federal government had no power to act. In a succession of vetoes he struck down measures proposing a national employment system or national relief; he reduced income tax rates; and only at the end of his term did he yield to popular pressure and set up agencies such as the Reconstruction Finance Corporation to make emergency loans to assist business.

After his 1932 defeat, Hoover returned to private business. In 1946, President Truman charged him with various world food missions; and from 1947 to 1949 and again from 1953 to 1955, he was head of the Commission on Organization of the Executive Branch of the Government.

FRANKLIN DELANO ROOSEVELT

was born in Hyde Park, New York, on January 30, 1882. A Harvard graduate, he attended Columbia Law School and was admitted to the New York bar. In 1910 he was elected to the New York state senate as a Democrat. Re-elected in 1912, he was appointed Assistant Secretary of the Navy by Woodrow Wilson in 1913. In 1920 his radiant personality and his war services resulted in his nomination for Vice President as James M. Cox's running mate. After his defeat, he returned to law practice in New York. In August, 1921, Roosevelt was stricken with infantile paralysis while at Campobello, New Brunswick. After a long and gallant fight against the disease he recovered partial use of his legs. In 1924 and 1928 he led the fight at the Democratic national conventions for the nomination of Governor Alfred E. Smith of New York; and in 1928 Roosevelt was himself induced to run for governor of New York. He was elected and was re-elected in 1930.

In 1932 Roosevelt received the Democratic nomination for President and immediately launched a campaign which brought new spirit to a weary and discouraged nation. He won the election over Herbert Hoover by a margin of 472 to 59 in the electoral college. His first term was characterized by an unfolding of the New Deal program, with greater benefits for labor, the farmers and the unemployed, and the progressive estrangement of most of the business community.

At an early stage Roosevelt became aware of the menace to world peace involved in the existence of totalitarian fascism, and from 1937 on he tried to focus public attention on the trend of events in Europe and Asia. As a result he was widely denounced as a warmonger. He was re-elected in 1936 over Alfred M. Landon by the overwhelming electoral margin of 523 to 8; and the gathering international crisis caused him to decide to run again in 1940. He defeated Wendell L. Willkie by a vote of 449 to 82.

Roosevelt's program to bring maximum aid to Britain and, after June, 1941, to Russia was opposed, until the Japanese attack on Pearl Harbor restored national unity. During the war Roosevelt shelved the New Deal in the interests of conciliating the business community, both in order to get full production during the war and to prepare the way for a united

acceptance of the peace settlements after the war. A series of conferences with Winston Churchill and Joseph Stalin laid down the bases for the postwar world. In 1944 he was elected to a fourth term, running against Governor Thomas E. Dewey of New York.

On April 12, 1945, Roosevelt died at Warm Springs, Georgia, shortly after his return from the Yalta Conference. His wife, Anna Eleanor Roosevelt, whom he married in 1905, is a woman of great ability who made significant contributions to her husband's policies. No President has been faced with so many staggering responsibilities, both at home and abroad.

HARRY S. TRUMAN

was born on a farm near Lamar, Missouri, on May 8, 1884. During the First World War he served in France with the 129th Field Artillery. He married Bess Wallace in 1919. After engaging briefly and unsuccessfully in the haberdashery business in Kansas City, Truman entered local politics. Under the sponsorship of Thomas Pendergast, Democratic boss of Missouri, he held a number of local offices, preserving his personal honesty in the midst of a notoriously corrupt political machine. In 1934 he was elected to the Senate and was re-elected in 1940. During his first term he was a loyal but quiet supporter of the New Deal; but in the course of his second term, an appointment as head of a Senate committee to investigate war production brought out his special qualities of honesty, common sense and hard work, and he won widespread respect.

Elected Vice President in 1944, Truman became President upon Roosevelt's death in 1945 and immediately had to face complex postwar problems, both domestic and foreign. His first attempts did not meet with marked success, and the Republicans won control of Congress in 1946. The next two years were distinguished by the Truman Doctrine, the Marshall Plan and civil-rights proposals; and his general record, highlighted by a vigorous Fair Deal campaign, brought about his unexpected and impressive re-election in 1948.

Truman's second term was primarily concerned with the Cold War with the Soviet Union, the implementing of the North Atlantic Pact, the United Nations police action in Korea, and the vast rearmament program with its accompanying problems of economic stabilization.

On Mar. 29, 1952, Truman announced that he would not run again for the Presidency. He campaigned actively for Adlai E. Stevenson. After Eisenhower's inauguration, Truman returned to his Independence, Missouri, home to write his memoirs. He further busied himself with the organization of the Harry S. Truman Library in Independence, Missouri.

DWIGHT DAVID EISENHOWER

was born in Denison, Texas, on October 14, 1890. His ancestors lived in Germany, and emigrated to America, settling in Pennsylvania, early in the 18th century. His father, David, had a general store in Hope, Kansas, which failed. After a brief time in Texas, the family moved to Abilene, Kansas.

After graduating from Abilene High School in 1909, Dwight Eisenhower did odd jobs for almost two years. He won an appointment to the Naval Academy at Annapolis, but it turned out that he was too old for admittance. Then he received an appointment in 1910 to West Point. He was graduated a 2nd lieutenant in 1915.

He did not see service in World War I, having been assigned to the 19th Infantry at Fort Sam Houston, Texas. There he met Mamie Geneva Doud, whom he married in Denver on July 1, 1916. Their first son died in infancy. Their second son is Major John Sheldon Doud Eisenhower.

A paper he wrote about 1930 attracted the attention of General Douglas MacArthur, then Chief of Staff, who asked that Eisenhower be assigned to his office. When MacArthur went to the Philippines as military adviser in 1935, Eisenhower accompanied him and remained with him until 1939.

General George C. Marshall brought him into the War Department General Staff and, in 1942, put him in command of the

Allied invasion of North Africa. In 1944, Eisenhower was made Supreme Allied Commander of the invasion of Europe.

After the war, Eisenhower served as Army Chief of Staff from November, 1945, until February, 1948, when he was appointed president of Columbia University.

In December 1950, President Truman recalled Eisenhower to active duty to command the North Atlantic Treaty Organization forces in Europe. He held this post until the end of May 1952.

In the Republican Convention of July, 1952 in Chicago, Eisenhower won the Presidential nomination on the first ballot in a close race with Senator Robert A. Taft of Ohio. In November, he won the election, defeating Adlai E. Stevenson by an electoral vote of 442 to 89.

Eisenhower's Administration from 1952 to the fall of 1958 was marked by alternating periods of tension and relaxation in foreign affairs. On the home front, following a middle-of-the-road line, he did little to abandon the social policies of the New Deal-Fair Deal, but he sought wider state participation and the assumption of a larger responsibility by business for investment and employment. His illnesses in Sept., 1955, and June, 1956, raised the question of his availability for a second term. He announced his candidacy on July 10, and was renominated. He was re-elected by a total of 457 electoral votes to 73 for Adlai E. Stevenson.

Also see, *Headline History* for 1957 and for later events see *News Items* for 1958.

How to Number the Presidents

Did Eisenhower take office as the 33rd President or as the 34th?

The difficulty started with Grover Cleveland. He became our 22nd President back in 1885. Then came Benjamin Harrison, who was obviously the 23rd President, serving from 1889-93. At this point, Cleveland returned to the White House for a second (but nonconsecutive) term.

Cleveland was still the same man who had been our 22nd President. But in his later term, it would look silly—some folks thought—to continue to call him our 22nd President. That would make the 22nd President follow the 23rd. Numbers should go in order—so ran the argument—and Cleveland should therefore be designated both as the 22nd President in his first term and as the 24th in his second term.

The people who argued the other way found an eloquent spokesman in John Kieran. He said: "Write down the names of all the Presidents, and you will only get 33. If you write Cleveland twice, you'll get 34—but in that case you've got

to write Franklin D. Roosevelt's name four times. Until they prove to me that Grover Cleveland was two men, Eisenhower can't be the 34th President."

The *Congressional Directory*, which must be considered the official final authority, grappled with the problem of numbering the Presidents. Until recent years, it has followed John Kieran's theory.

After the election of President Truman, and before the election of President Eisenhower, the *Congressional Directory* changed its official mind. In the 1956 *Congressional Directory*, Truman is the 33rd President, and Eisenhower is listed as the 34th. (Cleveland has two numbers—22nd and 24th.)

The 1957 *Congressional Directory* lists Presidents without numbering them—we don't know why. Although we are listing the Presidents on the basis of the *Congressional Directory* of 1956 we can't help thinking of John Kieran's remark: "Put the busts of all the Presidents in a row and count them and you will get 33, and only 33."

Executive Departments and Agencies

Source: U.S. Government Manual.

(Unless otherwise indicated, addresses shown are in Washington, D.C.; officials listed are as of Sept. 1958.)

Executive Office of the President

THE WHITE HOUSE OFFICE

1600 Pennsylvania Ave., NW.

The Assistant to the President: Sherman Adams. (Resigned Sept. 22, 1958.)

The Deputy Assistant to the President: Wilton B. Persons.

Secretary to the President: Thomas B. Stephens.

Press Secretary to the President: James C. Hagerty.

Special Counsel to the President: Gerald D. Morgan.

Special Assistant to the President for National Security Affairs: Gordon Gray.

Activities: Serves President in performance of activities incident to his office.

BUREAU OF THE BUDGET

Executive Office Bldg.

Established: June 10, 1921.

Director: Maurice H. Stans.

Activities: Assists President in preparing budget and formulating fiscal program; supervises administration of budget; coordinates advice on proposed legislation; plans improvements in statistical services; keeps President informed of progress of activities by government agencies so that Congressional appropriations are spent most economically.

NATIONAL SECURITY COUNCIL (NSC)

Executive Office Bldg.

Members: 5. *Established:* July 26, 1947.

Chairman: Dwight D. Eisenhower, President of the U. S.

Other members: Richard M. Nixon, Vice President of the U. S.; John Foster Dulles, Secretary of State; Neil H. McElroy, Secretary of Defense; Leo A. Hoegh, Director of Office of Defense & Civilian Mobilization.

Director of Central Intelligence Agency: Allen W. Dulles.

Chairman of Operations Coordinating Board: Christian A. Herter.

Activities: Assesses and appraises objectives, commitments and risks of U. S. in relation to our actual and potential military power in interests of national security. Central Intelligence Agency advises NSC on all intelligence matters. Operations Coordinating Board provides for integrated implementation of national security policies.

COUNCIL OF ECONOMIC ADVISERS

(CEA)

Executive Office Bldg.

Members: 3. *Established:* Feb. 20, 1946.

Chairman: Raymond J. Saulnier.

Other members: Joseph S. Davis, Paul W. McCracken.

Activities: Assists President in preparation of economic reports to Congress;

studies economic trends; appraises government activities on nation's economy; recommends economic policies.

OFFICE OF DEFENSE AND CIVILIAN MOBILIZATION

Executive Office Bldg.

Established: July 1, 1958, from merger of Office of Defense Mobilization and Federal Civil Defense Administration.

Director: Leo A. Hoegh.

Activities: Advises President on co-ordination of military, industrial and civilian mobilization.

Executive Departments

DEPARTMENT OF STATE

21st St. & Virginia Ave., NW.

Established: 1781 as Department of Foreign Affairs; reconstituted, 1789, following adoption of Constitution; name changed to Department of State Sept. 15, 1789.

Secretary: John Foster Dulles.

Under Secretary: Christian A. Herter.

Activities: Determines government policy in relation to international problems; formulates measures for promoting friendship with other countries; develops policies and programs for U. S. participation in U. N. and other international organizations; conducts correspondence with our representatives abroad and with accredited foreign representatives here.

DEPARTMENT OF THE TREASURY

15th St. & Pennsylvania Ave., NW.

Established: Sept. 2, 1789.

Secretary: Robert B. Anderson.

Under Secretary: Fred C. Scribner, Jr.

Activities: Manages national finances; grants warrants for money drawn from Treasury pursuant to legal appropriations; handles collection of revenue; keeps and renders public accounts; prepares plans for improvement of revenue and for support of public credit; reports annually to Congress on condition of public finances; controls coinage and printing of money; administers Coast Guard, Bureau of Narcotics and Secret Service.

DEPARTMENT OF DEFENSE

The Pentagon

Established: July 26, 1947, as National Military Establishment; name changed to Department of Defense on Aug. 10, 1949. Subordinate to Secretary of Defense are Secretaries of Army, Navy, Air Force.

Secretary: Neil H. McElroy.

Deputy Secretary: Donald A. Quarles.

Secretary of the Army: Wilber M. Brucker.

Secretary of the Navy: Thomas S. Gates, Jr.

Commandant, Marine Corps: Gen. Randolph McC. Pate.

Secretary of the Air Force: James H. Douglas.

*Joint Chiefs of Staff:** Gen. Nathan F. Twining, chairman; Gen. Maxwell D. Taylor, Army; Adm. Arleigh A. Burke, Navy; Gen. Thomas D. White, Air Force; Gen. Randolph McC. Pate, Marine Corps (on Marine Corps matters only).

Activities: Provides for security of U. S. by establishing integrated policies and procedures; co-ordinates and directs the activities of 3 separately administered military departments (Army, Navy, Air Force).

DEPARTMENT OF JUSTICE

Constitution Ave. & 10th St., NW.

Established: Office of Attorney General was created Sept. 24, 1789. Although he was one of original Cabinet members, he was not executive department head until June 22, 1870, when Department of Justice was established.

Attorney General: William P. Rogers.

Deputy Attorney General: Lawrence E. Walsh.

Director of FBI: J. Edgar Hoover.

Activities: Provides means for enforcing Federal laws; investigates and detects violations; represents U. S. in legal matters generally and gives advice and opinions when requested by President or heads of executive departments; directs FBI, Bureau of Prisons, Immigration and Naturalization Service.

POST OFFICE DEPARTMENT

12th St. & Pennsylvania Ave., NW.

Established: Office of Postmaster General and temporary post office system created Sept. 22, 1789. Act of Feb. 20, 1792, made detailed provisions for Post Office Department. Postmaster General became Cabinet member in 1829. Department received executive status June 8, 1872.

Postmaster General: Arthur E. Summerfield.

Deputy Postmaster General: Edson O. Sessions.

Activities: Maintains Postal Service of U. S. and executes all laws relative to it; negotiates, subject to approval of President, postal treaties with foreign governments.

DEPARTMENT OF THE INTERIOR

C St. between 18th & 19th Sts., NW.

Established: Mar. 3, 1849.

Secretary: Fred A. Seaton.

Under Secretary: Hatfield Chilson.

Activities: Develops and conserves natural resources of U. S. and territories; supervises public business relating to such offices as Bureau of Land Management, Bureau of Reclamation, Geological Survey, Bureau of Indian Affairs, National Park Service, Bureau of Mines, Fish and Wildlife Service, Office of Territories, etc.

* Consisting of a chairman and the chiefs of each service.

DEPARTMENT OF AGRICULTURE

14th St. & Independence Ave., SW.

Established: May 15, 1862. Administered by Commissioner of Agriculture until Feb. 9, 1889, when it was made executive department and office of Secretary was created.

Secretary: Ezra Taft Benson.

Under Secretary: True D. Morse.

Activities: Conducts comprehensive research and educational program relating to agriculture; provides crop reports, commodity standards, meat inspection and other marketing services; administers national forests; aids in flood control; administers price-support and production-adjustment programs; makes loans to farmers.

DEPARTMENT OF COMMERCE

14th St. between Constitution Ave. & E St., NW.

Established: Department of Commerce and Labor was created Feb. 14, 1903. On Mar. 4, 1913, all labor activities were transferred out of Department of Commerce and Labor and it was renamed Department of Commerce.

Secretary: Sinclair Weeks.

Under Secretary: Walter Williams.

Activities: Fosters and develops foreign and domestic commerce of U. S.; maintains Bureau of the Census, Office of Business Economics, Civil Aeronautics Administration, Coast and Geodetic Survey, Maritime Administration, Patent Office, Bureau of Public Roads, National Bureau of Standards, Weather Bureau, etc.

DEPARTMENT OF LABOR

14th St. & Constitution Ave., NW.

Established: Bureau of Labor was created in 1884 under Department of the Interior; later became independent department without executive rank. Returned to bureau status in Department of Commerce and Labor, but on Mar. 4, 1913, became independent executive department under its present name.

Secretary: James P. Mitchell.

Under Secretary: James T. O'Connell.

Activities: Promotes welfare of wage earners of U. S., improving their working conditions and advancing their opportunities for profitable employment; directs collection and collation of statistics concerning labor conditions; promulgates and enforces certain maximum-hour, minimum-wage, child-labor, safety and health standards.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

330 Independence Ave., SW.

Established: Apr. 11, 1953, replacing Federal Security Agency, which was created Apr. 25, 1939.

Secretary: Arthur S. Flemming.

Under Secretary: Bertha Sheppard Adkins.

Activities: Supervises and co-ordinates various organizations within the department. Organizations are: Food and Drug Administration, Office of Education, Office of Vocational Rehabilitation, Public Health Service, St. Elizabeths Hospital, Social Security Administration; also following Federally supported corporations: American Printing House for the Blind, Gallaudet College and Howard University.

Independent Agencies

(Because of space limitations, only agencies of interest to the general public are listed here.)

Executive Department

ATOMIC ENERGY COMMISSION (AEC)

19th St. & Constitution Ave., NW.

Members: 5. **Established:** Aug. 1, 1946.

Chairman: John A. McCone.

Other members: John F. Floberg, Dr. W. F. Libby, John S. Graham, Harold S. Vance.

Activities: Promotes Federally conducted and private research and development; controls dissemination of information and production, ownership and use of fissionable materials.

CIVIL AERONAUTICS BOARD (CAB)

Dept. of Commerce Bldg.

Members: 5. **Established:** June 30, 1940.

Chairman: James R. Durfee.

Activities: Regulates economic aspects of U. S. air carrier operation; prescribes safety standards; investigates and analyzes aircraft accidents; assists in development of international air transportation.

FARM CREDIT ADMINISTRATION (FCA)

South Bldg., Dept. of Agriculture.

Established: July 17, 1916.

Chairman: M. H. Edwards.

Activities: Supervises and coordinates cooperative credit system for agriculture; provides long- and short-term credit to farmers and their cooperative marketing, purchasing and business service organizations.

FEDERAL COMMUNICATIONS COMMISSION (FCC)

Post Office Dept. Bldg.

Members: 7. **Established:** 1934.

Chairman: John C. Doerfer.

Activities: Regulates interstate and foreign communications by wire and radio, including amateur radio and TV; regulates operator's licenses; classifies radio stations and prescribes their services; enforces use of radio for safety purposes on U. S. ships.

FEDERAL MEDIATION AND CONCILIATION SERVICE (FMCS)

Department of Labor Bldg.

Established: 1947.

Director: Joseph F. Finnegan.

Activities: Assists in labor-management disputes in industries affecting interstate commerce to reach settlements by mediation or conciliation; promotes better relations between labor and management.

FEDERAL POWER COMMISSION (FPC)

General Accounting Office Bldg., 441 G St., NW.

Established: June 23, 1930.

Chairman: Jerome K. Kuykendall.

Activities: Licenses hydroelectric projects on U. S. Government lands or navigable waters; has jurisdiction over interstate commerce involving sale of electric energy and natural gas and companies engaged therein; handles transmission of electric energy and natural gas between U. S. and foreign countries.

FEDERAL RESERVE SYSTEM (FRS), BOARD OF GOVERNORS OF

20th St. & Constitution Ave., NW.

Members: 7. **Established:** Dec. 23, 1913.

Chairman: William McC. Martin, Jr.

Activities: Supervises Federal Reserve banks; influences credit conditions; regulates open-market operations; issues Federal Reserve notes.

FEDERAL TRADE COMMISSION (FTC)

6th St. & Pennsylvania Ave., NW.

Members: 5. **Established:** Sept. 26, 1914.

Chairman: John W. Gwynne.

Activities: Prevents unfair competition, deceptive practices, false advertising, price discrimination, monopolies.

HOUSING AND HOME FINANCE AGENCY (HHFA)

1626 K St., NW.

Established: July 27, 1947.

Administrator: Albert M. Cole.

Activities: Provides single agency responsible for principal housing programs and functions of Federal government; supervises and co-ordinates activities of Federal National Mortgage Association (FNMA), Federal Housing Administration (FHA), Public Housing Administration (PHA), Federal Flood Indemnity Administration; Voluntary Home Mortgage Credit Program, Urban Renewal Administration, and Community Facilities Administration.

INTERSTATE COMMERCE COMMISSION (ICC)

12th St. & Constitution Ave., NW.

Members: 11. **Established:** Feb. 4, 1887.

Chairman: Howard G. Freas.

Activities: Regulates railroads, motor

carriers, water carriers and freight forwarders as to rates, through-routes, services and bills of lading; authorizes mergers or consolidations; authorizes issue of securities by carriers.

NATIONAL LABOR RELATIONS BOARD (NLRB)

3rd & C Sts., SW.

Members: 5. *Established:* July 5, 1935.

Chairman: Boyd Leedom.

Activities: Prevents unfair labor practices by employers or labor organizations; conducts secret ballots among employees to determine their choice of bargaining representatives.

SECURITIES AND EXCHANGE COMMISSION (SEC)

425 2nd St., NW.

Members: 5. *Established:* June 6, 1934.

Chairman: Edward N. Gadsby.

Activities: Registers and issues regulations for securities and exchanges; registers securities offered for public sale; penalizes violators of regulations subject to appeal to U. S. Court of Appeals.

SELECTIVE SERVICE SYSTEM (SSS)

451 Indiana Ave., NW.

Established: 1948.

Director: Lt. Gen. Lewis B. Hershey.

Activities: Handles registration, examination, classification and selection for induction into armed forces or other disposition of men required to register under Universal Training and Service Act.

SMALL BUSINESS ADMINISTRATION (SBA)

811 Vermont Ave., NW.

Established: July 30, 1953.

Administrator: Wendell B. Barnes.

Activities: Aids and assists the interests of small business firms to insure a fair share of total government contracts; makes loans to small firms and victims of flood and disaster.

TENNESSEE VALLEY AUTHORITY (TVA)

New Sprinkle Bldg., Knoxville, Tenn. (Wash. office: Woodward Bldg., 15th & H Sts., NW.)

Members: 3. *Established:* May 18, 1933.

Chairman: Herbert D. Vogel.

Other members: Arnold R. Jones, Frank J. Welch.

Activities: Provides navigable channel and flood control of Tennessee River and some of its larger tributaries; disposes of surplus electric power; improves, increases and cheapens fertilizer production.

U. S. CIVIL SERVICE COMMISSION (CSC)

8th & F Sts., NW.

Members: 3. *Established:* Jan. 16, 1883.

Chairman: Harris Ellsworth.

Activities: Provides examinations to test fitness of applicants for positions in competitive service; provides personnel in response to requests from appointing officers; investigates applicants for national security purposes; classifies positions; maintains service records.

U. S. INFORMATION AGENCY (USIA)

1776 Pennsylvania Ave., NW.

Established: Aug. 1, 1953.

Director: George V. Allen.

Activities: Directs information to foreign peoples, such as explanation and interpretation of policies of U. S. Government and delineation of U. S. life and culture.

U. S. TARIFF COMMISSION

E St. between 7th & 8th Sts., NW.

Members: 6. *Established:* Sept. 8, 1916.

Chairman: Edgar B. Brossard.

Activities: Investigates customs laws, unfair competition and foreign and domestic manufacturing costs; advises the President on duty rates.

VETERANS' ADMINISTRATION (VA)

Vermont Ave. between H & I Sts., NW.

Established: July 21, 1930.

Administrator: Sumner G. Whittier.

Activities: Administers laws authorizing benefits for veterans and for their dependents or beneficiaries. Included are hospitalization, pensions, insurance, loans, education, etc.

Legislative Department

GENERAL ACCOUNTING OFFICE (GAO)

441 G St., NW.

Established: June 10, 1921.

Comptroller General of the U. S.: Joseph Campbell.

Activities: Performs independent audits of government financial transactions to provide basis for settlement of accounts and to evaluate management of financial affairs by agencies; exercises power of disallowance based on Comptroller General's settlement of accounts and claims; issues reports to Congress on its findings.

LIBRARY OF CONGRESS

First St., SE, between East Capitol St. and Independence Ave.

Established: Apr. 24, 1800.

Librarian of Congress: L. Quincy Mumford.

Activities: Intended primarily for service of Congress, it has come to include entire governmental establishment and public at large. (For further description, consult index.)

U. S. Cabinet Members with Dates of Appointment

Although the Constitution made no provision for a President's advisory group, the heads of the three executive departments (State, Treasury and War) and the Attorney General were organized by Washington into such a group; and by about 1793, the name "Cabinet" was applied to it. With the exception of the Attorney General up to 1870 and the Postmaster General from 1829-72, Cabinet members have been heads of executive departments, although other government officials may be called to sit in whenever necessary.

A Cabinet member is appointed by the President, subject to the confirmation of the Senate; and as his term is not fixed, he may be replaced at any time by the

President. At a change in Administration, it is customary for him to tender his resignation, but he remains in office until a successor is appointed.

The table of Cabinet members lists only those members who actually served after being duly commissioned. It does not include ad-interim appointments or cases where the appointee declined the office after appointment.

The dates shown are those of appointment. "Contd" indicates that the term continued from the previous Administration for a substantial amount of time. Those cases where the term continued for only a few days, until a new appointment could be made, are not indicated.

WASHINGTON

Secretary of State

Thomas Jefferson..... 1789
Edmund Randolph..... 1794
Timothy Pickering..... 1795

Secretary of the Treasury

Alexander Hamilton.... 1789
Oliver Wolcott, Jr..... 1795

Secretary of War

Henry Knox..... 1789
Timothy Pickering..... 1795
James McHenry..... 1796

Attorney General

Edmund Randolph..... 1789
William Bradford..... 1794
Charles Lee..... 1795

J. ADAMS

Secretary of State

Timothy Pickering.... Contd
John Marshall..... 1800

Secretary of the Treasury

Oliver Wolcott, Jr.... Contd
Samuel Dexter..... 1801

Secretary of War

James McHenry..... Contd
Samuel Dexter..... 1800

Attorney General

Charles Lee..... Contd

Secretary of the Navy

Benjamin Stoddert.... 1798

JEFFERSON

Secretary of State

James Madison..... 1801

Secretary of the Treasury

Samuel Dexter..... Contd
Albert Gallatin..... 1801

Secretary of War

Henry Dearborn..... 1801

Attorney General

Levi Lincoln..... 1801
Robert Smith..... 1805
John Breckinridge..... 1805
Caesar A. Rodney..... 1807

Secretary of the Navy

Benjamin Stoddert... Contd
Robert Smith..... 1801

MADISON

Secretary of State

Robert Smith..... 1809
James Monroe..... 1811

Secretary of the Treasury

Albert Gallatin..... Contd
George W. Campbell.... 1814
Alexander J. Dallas.... 1814
William H. Crawford... 1816

Secretary of War

William Eustis..... 1809
John Armstrong..... 1813
James Monroe..... 1814
William H. Crawford... 1815

Attorney General

Caesar A. Rodney.... Contd
William Pinckney..... 1811
Richard Rush..... 1814

Secretary of the Navy

Paul Hamilton..... 1809
William Jones..... 1813
B. W. Crowninshield... 1814

MONROE

Secretary of State

John Quincy Adams.... 1817

Secretary of the Treasury

William H. Crawford... Contd

Secretary of War

John C. Calhoun..... 1817

Attorney General

Richard Rush..... Contd
William Wirt..... 1817

Secretary of the Navy

B. W. Crowninshield... Contd
Smith Thompson..... 1818
Samuel L. Southard... 1823

J. Q. ADAMS

Secretary of State

Henry Clay..... 1825

Secretary of the Treasury

Richard Rush..... 1825

Secretary of War

James Barbour..... 1825
Peter B. Porter..... 1828

Attorney General

William Wirt..... Contd

Secretary of the Navy

Samuel L. Southard... Contd

JACKSON

Secretary of State

Martin Van Buren..... 1829
Edward Livingston.... 1831
Louis McLane..... 1833
John Forsyth..... 1834

Secretary of the Treasury

Samuel D. Ingham..... 1829
Louis McLane..... 1831
William J. Duane..... 1833
Roger B. Taney..... 1833
Levi Woodbury..... 1834

Secretary of War

John H. Eaton..... 1829
Lewis Cass..... 1831

Attorney General

John M. Berrien..... 1829
Roger B. Taney..... 1831
Benjamin F. Butler.... 1833

Postmaster General¹

William T. Barry..... 1829
Amos Kendall..... 1835

Secretary of the Navy

John Branch..... 1829
Levi Woodbury..... 1831
Mahlon Dickerson.... 1834

VAN BUREN

Secretary of State

John Forsyth..... Contd

Secretary of the Treasury

Levi Woodbury..... Contd

Secretary of War

Joel R. Poinsett..... 1837

Attorney General

Benjamin F. Butler... Contd
Felix Grundy..... 1838
Henry D. Gilpin..... 1840

Postmaster General

Amos Kendall..... Contd
John M. Niles..... 1840

Secretary of the Navy

Mahlon Dickerson.... Contd
James K. Paulding.... 1838

W. HARRISON

Secretary of State

Daniel Webster..... 1841

Secretary of the Treasury

Thomas Ewing..... 1841

Secretary of War

John Bell..... 1841

Attorney General

John J. Crittenden.... 1841

Postmaster General

Francis Granger..... 1841

Secretary of the Navy

George E. Badger..... 1841

TYLER

Secretary of State
Daniel Webster..... Contd
Abel P. Upshur..... 1843
John C. Calhoun..... 1844

Secretary of the Treasury
Thomas Ewing..... Contd
Walter Forward..... 1841
John C. Spencer..... 1843
George M. Bibb..... 1844

Secretary of War
John Bell..... Contd
John C. Spencer..... 1841
James M. Porter..... 1843
William Wilkins..... 1844

Attorney General
John J. Crittenden..... Contd
Hugh S. Legaré..... 1841
John Nelson..... 1843

Postmaster General
Francis Granger..... Contd
Charles A. Wickliffe..... 1841

Secretary of the Navy
George E. Badger..... Contd
Abel P. Upshur..... 1841
David Henshaw..... 1843
Thomas W. Gilmer..... 1844
John Y. Mason..... 1844

POLK

Secretary of State
James Buchanan..... 1845

Secretary of the Treasury
Robert J. Walker..... 1845

Secretary of War
William L. Marcy..... 1845

Attorney General
John Y. Mason..... 1845
Nathan Clifford..... 1846
Isaac Toucey..... 1848

Postmaster General
Cave Johnson..... 1845

Secretary of the Navy
George Bancroft..... 1845
John Y. Mason..... 1846

TAYLOR

Secretary of State
John M. Clayton..... 1849

Secretary of the Treasury
William M. Meredith..... 1849

Secretary of War
George W. Crawford..... 1849

Attorney General
Reverdy Johnson..... 1849

Postmaster General
Jacob Collamer..... 1849

Secretary of the Navy
William B. Preston..... 1849

Secretary of the Interior

Thomas Ewing..... 1849

FILLMORE**Secretary of State**

Daniel Webster..... 1850
Edward Everett..... 1852

Secretary of the Treasury
Thomas Corwin..... 1850

Secretary of War
Charles M. Conrad..... 1850

Attorney General
John J. Crittenden..... 1850

Postmaster General
Nathan K. Hall..... 1850
Samuel D. Hubbard..... 1852

Secretary of the Navy
William A. Graham..... 1850
John P. Kennedy..... 1852

Secretary of the Interior
Thos. M. T. McKennan. 1850
Alex. H. H. Stuart..... 1850

PIERCE

Secretary of State
William L. Marcy..... 1853

Secretary of the Treasury
James Guthrie..... 1853

Secretary of War
Jefferson Davis..... 1853

Attorney General
Caleb Cushing..... 1853

Postmaster General
James Campbell..... 1853

Secretary of the Navy
James C. Dobbin..... 1853

Secretary of the Interior
Robert McClelland..... 1853

BUCHANAN

Secretary of State
Lewis Cass..... 1857
Jeremiah S. Black..... 1860

Secretary of the Treasury
Howell Cobb..... 1857
Philip F. Thomas..... 1860
John A. Dix..... 1861

Secretary of War
John B. Floyd..... 1857
Joseph Holt..... 1861

Attorney General
Jeremiah S. Black..... 1857
Edwin M. Stanton..... 1860

Postmaster General
Aaron V. Brown..... 1857
Joseph Holt..... 1859
Horatio King..... 1861

Secretary of the Navy

Isaac Toucey..... 1857

Secretary of the Interior
Jacob Thompson..... 1857

LINCOLN

Secretary of State
William H. Seward..... 1861

Secretary of the Treasury
Salmon P. Chase..... 1861
William P. Fessenden..... 1864
Hugh McCulloch..... 1865

Secretary of War
Simon Cameron..... 1861
Edwin M. Stanton..... 1862

Attorney General
Edward Bates..... 1861
James Speed..... 1864

Postmaster General
Montgomery Blair..... 1861
William Dennison..... 1864

Secretary of the Navy
Gideon Welles..... 1861

Secretary of the Interior
Caleb B. Smith..... 1861
John P. Usher..... 1863

JOHNSON

Secretary of State
William H. Seward..... Contd

Secretary of the Treasury
Hugh McCulloch..... Contd

Secretary of War
Edwin M. Stanton..... Contd
John M. Schofield..... 1868

Attorney General
James Speed..... Contd
Henry Stanbery..... 1866
William M. Evarts..... 1868

Postmaster General
William Dennison..... Contd
Alexander W. Randall..... 1866

Secretary of the Navy
Gideon Welles..... Contd

Secretary of the Interior
John P. Usher..... Contd
James Harlan..... 1865
Orville H. Browning..... 1866

GRANT

Secretary of State
Elihu B. Washburne..... 1869
Hamilton Fish..... 1869

Secretary of the Treasury
George S. Boutwell..... 1869
William A. Richardson..... 1873
Benjamin H. Bristow..... 1874
Lot M. Morrill..... 1876

Secretary of War

John A. Rawlins..... 1869
William T. Sherman..... 1869
William W. Belknap..... 1869
Alphonso Taft..... 1876
James D. Cameron..... 1876

Attorney General

Ebenezer R. Hoar..... 1869
Amos T. Akerman..... 1870
George H. Williams..... 1871
Edwards Pierrepont..... 1875
Alphonso Taft..... 1876

Postmaster General

John A. J. Creswell..... 1869
James W. Marshall..... 1874
Marshall Jewell..... 1874
James N. Tyner..... 1876

Secretary of the Navy

Adolph E. Borie..... 1869
George M. Robeson..... 1869

Secretary of the Interior

Jacob D. Cox..... 1869
Columbus Delano..... 1870
Zachariah Chandler..... 1875

HAYES

Secretary of State
William M. Evarts..... 1877

Secretary of the Treasury
John Sherman..... 1877

Secretary of War
George W. McCrary..... 1877
Alexander Ramsey..... 1879

Attorney General
Charles Devens..... 1877

Postmaster General
David M. Key..... 1877
Horace Maynard..... 1880

Secretary of the Navy
Richard W. Thompson..... 1877
Nathan Goff, Jr..... 1881

Secretary of the Interior
Carl Schurz..... 1877

GARFIELD

Secretary of State
James G. Blaine..... 1881

Secretary of the Treasury
William Windom..... 1881

Secretary of War
Robert T. Lincoln..... 1881

Attorney General
Wayne MacVeagh..... 1881

Postmaster General
Thomas L. James..... 1881

Secretary of the Navy
William H. Hunt..... 1881

Secretary of the Interior
Samuel J. Kirkwood..... 1881

ARTHUR

Secretary of State

James G. Blaine..... Contd
F. T. Frelinghuysen..... 1881

Secretary of the Treasury

William Windom..... Contd
Charles J. Folger..... 1881
Walter Q. Gresham..... 1884
Hugh McCulloch..... 1884

Secretary of War

Robert T. Lincoln..... Contd

Attorney General

Wayne MacVeagh..... Contd
Benjamin H. Brewster..... 1881

Postmaster General

Thomas L. James..... Contd
Timothy O. Howe..... 1881
Walter Q. Gresham..... 1883
Frank Hatton..... 1884

Secretary of the Navy

William H. Hunt..... Contd
William E. Chandler..... 1882

Secretary of the Interior

Samuel J. Kirkwood..... Contd
Henry M. Teller..... 1882

CLEVELAND

Secretary of State

Thomas F. Bayard..... 1885

Secretary of the Treasury

Daniel Manning..... 1885
Charles S. Fairchild..... 1887

Secretary of War

William C. Endicott..... 1885

Attorney General

Augustus H. Garland..... 1885

Postmaster General

William F. Vilas..... 1885
Don M. Dickinson..... 1888

Secretary of the Navy

William C. Whitney..... 1885

Secretary of the Interior

Lucius Q. C. Lamar..... 1885
William F. Vilas..... 1888

Secretary of Agriculture

Norman J. Colman..... 1889

HARRISON

Secretary of State

James G. Blaine..... 1889
John W. Foster..... 1892

Secretary of the Treasury

William Windom..... 1889
Charles Foster..... 1891

Secretary of War

Redfield Proctor..... 1889
Stephen B. Elkins..... 1891

Attorney General

William H. H. Miller..... 1889

Postmaster General

John Wanamaker..... 1889

Secretary of the Navy

Benjamin F. Tracy..... 1889

Secretary of the Interior

John W. Noble..... 1889

Secretary of Agriculture

Jeremiah M. Rusk..... 1889

CLEVELAND

Secretary of State

Walter Q. Gresham..... 1893
Richard Olney..... 1895

Secretary of the Treasury

John G. Carlisle..... 1893

Secretary of War

Daniel S. Lamont..... 1893

Attorney General

Richard Olney..... 1893
Judson Harmon..... 1895

Postmaster General

Wilson S. Bissell..... 1893
William L. Wilson..... 1895

Secretary of the Navy

Hilary A. Herbert..... 1893

Secretary of the Interior

Hoke Smith..... 1893
David R. Francis..... 1896

Secretary of Agriculture

Julius Sterling Morton..... 1893

McKINLEY

Secretary of State

John Sherman..... 1897
William R. Day..... 1898
John Hay..... 1898

Secretary of the Treasury

Lyman J. Gage..... 1897

Secretary of War

Russell A. Alger..... 1897
Elihu Root..... 1899

Attorney General

Joseph McKenna..... 1897
John W. Griggs..... 1898
Philander C. Knox..... 1901

Postmaster General

James A. Gary..... 1897
Charles E. Smith..... 1898

Secretary of the Navy

John D. Long..... 1897

Secretary of the Interior

Cornelius N. Bliss..... 1897
Ethan A. Hitchcock..... 1898

Secretary of Agriculture

James Wilson..... 1897

T. ROOSEVELT

Secretary of State

John Hay..... Contd
Elihu Root..... 1905
Robert Bacon..... 1909

Secretary of the Treasury

Lyman J. Gage..... Contd
Leslie M. Shaw..... 1902
George B. Cortelyou..... 1907

Secretary of War

Elihu Root..... Contd
William H. Taft..... 1904
Luke E. Wright..... 1908

Attorney General

Philander C. Knox..... Contd
William H. Moody..... 1904
Charles J. Bonaparte..... 1906

Postmaster General

Charles E. Smith..... Contd
Henry C. Payne..... 1902
Robert J. Wynne..... 1904
George B. Cortelyou..... 1905
George von L. Meyer..... 1907

Secretary of the Navy

John D. Long..... Contd
William H. Moody..... 1902
Paul Morton..... 1904
Charles J. Bonaparte..... 1905
Victor H. Metcalf..... 1906
Truman H. Newberry..... 1908

Secretary of the Interior

Ethan A. Hitchcock..... Contd
James R. Garfield..... 1907

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce
and Labor

George B. Cortelyou..... 1903
Victor H. Metcalf..... 1904
Oscar S. Straus..... 1906

TAFT

Secretary of State

Philander C. Knox..... 1909

Secretary of the Treasury

Franklin MacVeagh..... 1909

Secretary of War

Jacob M. Dickinson..... 1909
Henry L. Stimson..... 1911

Attorney General

George W. Wickersham..... 1909

Postmaster General

Frank H. Hitchcock..... 1909

Secretary of the Navy

George von L. Meyer..... 1909

Secretary of the Interior

Richard A. Ballinger..... 1909
Walter L. Fisher..... 1911

Secretary of Agriculture

James Wilson..... Contd

Secretary of Commerce
and Labor

Charles Nagel..... 1909

WILSON

Secretary of State

William J. Bryan..... 1913
Robert Lansing..... 1915
Bainbridge Colby..... 1920

Secretary of the Treasury

William G. McAdoo..... 1913
Carter Glass..... 1918
David F. Houston..... 1920

Secretary of War

Lindley M. Garrison..... 1913
Newton D. Baker..... 1916

Attorney General

James C. McReynolds..... 1913
Thomas W. Gregory..... 1914
A. Mitchell Palmer..... 1919

Postmaster General

Albert S. Burleson..... 1913

Secretary of the Navy

Josephus Daniels..... 1913

Secretary of the Interior

Franklin K. Lane..... 1913
John B. Payne..... 1920

Secretary of Agriculture

David F. Houston..... 1913
Edwin T. Meredith..... 1920

Secretary of Commerce

William C. Redfield..... 1913
Joshua W. Alexander..... 1919

Secretary of Labor

William B. Wilson..... 1913

HARDING

Secretary of State

Charles E. Hughes..... 1921

Secretary of the Treasury

Andrew W. Mellon..... 1921

Secretary of War

John W. Weeks..... 1921

Attorney General

Harry M. Daugherty..... 1921

Postmaster General

Will H. Hays..... 1921
Hubert Work..... 1922
Harry S. New..... 1923

Secretary of the Navy

Edwin Denby..... 1921

Secretary of the Interior

Albert B. Fall..... 1921
Hubert Work..... 1923

Secretary of Agriculture

Henry C. Wallace..... 1921

Secretary of Commerce

Herbert Hoover..... 1921

Secretary of Labor

James J. Davis..... 1921

COOLIDGE

Secretary of State

Charles E. Hughes.... Contd
Frank B. Kellogg..... 1925

Secretary of the Treasury

Andrew W. Mellon.... Contd

Secretary of War

John W. Weeks..... Contd
Dwight F. Davis..... 1925

Attorney General

Harry M. Daugherty.... Contd
Harlan F. Stone..... 1924
John G. Sargent..... 1925

Postmaster General

Harry S. New..... Contd

Secretary of the Navy

Edwin Denby..... Contd
Curtis D. Wilbur..... 1924

Secretary of the Interior

Hubert Work..... Contd
Roy O. West..... 1928

Secretary of Agriculture

Henry C. Wallace..... Contd
Howard M. Gore..... 1924
William M. Jardine..... 1925

Secretary of Commerce

Herbert Hoover..... Contd
William F. Whiting..... 1928

Secretary of Labor

James J. Davis..... Contd

HOOVER

Secretary of State

Frank B. Kellogg..... Contd
Henry L. Stimson..... 1929

Secretary of the Treasury

Andrew W. Mellon.... Contd
Ogden L. Mills..... 1932

Secretary of War

James W. Good..... 1929
Patrick J. Hurley..... 1929

* The Postmaster General did not become a Cabinet member until 1929. Earlier Postmasters General were: Samuel Osgood (1789), Timothy Pickering (1791), Joseph Habersham (1795), Gideon Granger (1801), Return J. Meigs, Jr. (1814) and John McLean (1823). * On July 26, 1947, the Departments of War and of the Navy were incorporated into the Department of Defense.

Attorney General

William D. Mitchell.... 1929

Postmaster General

Walter F. Brown..... 1929

Secretary of the Navy

Charles F. Adams..... 1929

Secretary of the Interior

Ray Lyman Wilbur..... 1929

Secretary of Agriculture

Arthur M. Hyde..... 1929

Secretary of Commerce

Robert P. Lamont..... 1929
Roy D. Chapin..... 1932

Secretary of Labor

James J. Davis..... Contd
William N. Doak..... 1930

F. ROOSEVELT

Secretary of State

Cordell Hull..... 1933
E. R. Stettinius, Jr..... 1944

Secretary of the Treasury

William H. Woodin..... 1933
Henry Morgenthau, Jr. 1934

Secretary of War

George H. Dern..... 1933
Harry H. Woodring.... 1936
Henry L. Stimson..... 1940

Attorney General

Homer S. Cummings.... 1933
Frank Murphy..... 1939
Robert H. Jackson..... 1940
Francis Biddle..... 1941

Postmaster General

James A. Farley..... 1933
Frank C. Walker..... 1940

Secretary of the Navy

Claude A. Swanson.... 1933
Charles Edison..... 1940
Frank Knox..... 1940
James Forrestal..... 1944

Secretary of the Interior

Harold L. Ickes..... 1933

Secretary of Agriculture

Henry A. Wallace..... 1933
Claude R. Wickard..... 1940

Secretary of Commerce

Daniel C. Roper..... 1933
Harry L. Hopkins..... 1938
Jesse H. Jones..... 1940
Henry A. Wallace..... 1945

Secretary of Labor

Frances Perkins..... 1933

TRUMAN

Secretary of State

E. R. Stettinius, Jr.... Contd
James F. Byrnes..... 1945
George C. Marshall.... 1947
Dean Acheson..... 1949

Secretary of the Treasury

Henry Morgenthau, Jr. Contd
Fred M. Vinson..... 1945
John W. Snyder..... 1946

Secretary of Defense

James Forrestal..... 1947
Louis A. Johnson..... 1949
George C. Marshall.... 1950
Robert A. Lovett..... 1951

Attorney General

Francis Biddle..... Contd
Tom C. Clark..... 1945
J. Howard McGrath.... 1949
James P. McGranery.... 1952

Postmaster General

Frank C. Walker..... Contd
Robert E. Hannegan.... 1945
Jesse M. Donaldson.... 1947

Secretary of the Interior

Harold L. Ickes..... Contd
Julius C. Krug..... 1946
Oscar L. Chapman..... 1949

Secretary of Agriculture

Claude R. Wickard.... Contd
Clinton P. Anderson.... 1945
Charles F. Brannan.... 1948

Secretary of Commerce

Henry A. Wallace..... Contd
W. Averell Harriman... 1946
Charles Sawyer..... 1948

Secretary of Labor

Frances Perkins..... Contd
Lewis B. Schwellenbach 1945
Maurice J. Tobin..... 1948

Secretary of War¹

Henry L. Stimson..... Contd
Robert P. Patterson.... 1945
Kenneth C. Royall.... 1947

Secretary of the Navy²

James Forrestal..... Contd

EISENHOWER

Secretary of State

John Foster Dulles..... 1953

Secretary of the Treasury

George M. Humphrey... 1953
Robert B. Anderson.... 1957

Secretary of Defense

Charles E. Wilson..... 1953
Neil H. McElroy..... 1957

Attorney General

Herbert Brownell, Jr... 1953
William P. Rogers..... 1958

Postmaster General

Arthur Summerfield... 1953

Secretary of the Interior

Douglas McKay..... 1953
Frederick A. Seaton... 1956

Secretary of Agriculture

Ezra Taft Benson..... 1953

Secretary of Commerce

Sinclair Weeks..... 1953

Secretary of Labor

Martin P. Durkin..... 1953
James P. Mitchell..... 1953

Secretary of Health,
Education and Welfare

Oveta Culp Hobby..... 1953
Marion B. Folsom..... 1955
Arthur S. Fleming..... 1958

The Confederate States of America, 1861-65

President—Jefferson Davis; born, Christian (now Todd) Co., Ky., June 3, 1808; died, Dec. 6, 1889. Vice President—Alexander H. Stephens.

CABINET*

Secretary of State

Robert Toombs..... 1861
Robert M. T. Hunter... 1861
Judah P. Benjamin.... 1862

Secretary of Treasury

Christopher Memminger 1861
George A. Trenholm.... 1864

Secretary of War

Leroy P. Walker..... 1861
Judah P. Benjamin.... 1861
George W. Randolph... 1862
James A. Seddon..... 1862
John C. Breckinridge... 1865

Secretary of Navy

Stephen R. Mallory.... 1861

Postmaster General

Henry T. Ellett..... 1861
John H. Reagan..... 1861

Attorney General

Judah P. Benjamin.... 1861
Thomas Bragg..... 1861
Thomas N. Watts..... 1862
George Davis..... 1864

* Dates are those of appointment.

SPEAKERS OF THE HOUSE OF REPRESENTATIVES

Source: Congressional Directory.

Name and state	Congress	Dates served	Name and state	Congress	Dates served
Frederick A. C. Muhlenberg (Pa.)	1	1789-1791	Galusha A. Grow (Pa.)	37	1861-1863
Jonathan Trumbull (Conn.)	2	1791-1793	Schuyler Colfax (Ind.)	38-40	1863-1869
Frederick A. C. Muhlenberg (Pa.)	3	1793-1795	Theodore M. Pomeroy (N. Y.) ⁵	40	1869-1869
Jonathan Dayton (N. J.) ¹	4-5	1795-1799	James G. Blaine (Maine)	41-43	1869-1875
Theodore Sedgwick (Mass.)	6	1799-1801	Michael C. Kerr (Ind.) ⁶	44	1875-1876
Nathaniel Macon (N. C.)	7-9	1801-1807	Samuel J. Randall (Pa.)	44-46	1876-1881
Joseph B. Varnum (Mass.)	10-11	1807-1811	J. Warren Keifer (Ohio)	47	1881-1883
Henry Clay (Ky.) ²	12-13	1811-1814	John G. Carlisle (Ky.)	48-50	1883-1889
Langdon Cheves (S. C.)	13	1814-1815	Thomas B. Reed (Maine)	51	1889-1891
Henry Clay (Ky.) ²	14-16	1815-1820	Charles F. Crisp (Ga.)	52-53	1891-1895
John W. Taylor (N. Y.)	16	1820-1821	Thomas B. Reed (Maine)	54-55	1895-1899
Phillip P. Barbour (Va.)	17	1821-1823	David B. Henderson (Iowa)	56-57	1899-1903
Henry Clay (Ky.)	18	1823-1825	Joseph G. Cannon (Ill.)	58-61	1903-1911
John W. Taylor (N. Y.)	19	1825-1827	Champ Clark (Mo.)	62-65	1911-1919
Andrew Stevenson (Va.) ⁴	20-23	1827-1834	Frederick H. Gillett (Mass.)	66-68	1919-1925
John Bell (Tenn.)	23	1834-1835	Nicholas Longworth (Ohio)	69-71	1925-1931
James K. Polk (Tenn.)	24-25	1835-1839	John N. Garner (Tex.)	72	1931-1933
Robert M. T. Hunter (Va.)	26	1839-1841	Henry T. Rainey (Ill.) ⁷	73	1933-1934
John White (Ky.)	27	1841-1843	Joseph W. Byrns (Tenn.) ⁸	74	1935-1936
John W. Jones (Va.)	28	1843-1845	William B. Bankhead (Ala.) ⁹	74-76	1936-1940
John W. Davis (Ind.)	29	1845-1847	Sam Rayburn (Tex.)	76-79	1940-1947
Robert C. Winthrop (Mass.)	30	1847-1849	Joseph W. Martin, Jr. (Mass.)	80	1947-1949
Howell Cobb (Ga.)	31	1849-1851	Sam Rayburn (Tex.)	81-82	1949-1953
Linn Boyd (Ky.)	32-33	1851-1855	Joseph W. Martin, Jr. (Mass.)	83	1953-1955
Nathaniel P. Banks (Mass.)	34	1855-1857	Sam Rayburn (Tex.)	84-	1955-
James L. Orr (S. C.)	35	1857-1859			
Wm. Pennington (N. J.)	36	1859-1861			

¹ George Dent (Md.) was elected Speaker pro tempore for Apr. 20 and May 28, 1798. ² Resigned during 2d session of 13th Congress. ³ Resigned between 1st and 2d sessions of 16th Congress. ⁴ Resigned during 1st session of 23d Congress. ⁵ Elected Speaker and served the day of adjournment. ⁶ Died between 1st and 2d sessions of 44th Congress. During 1st session, there were two Speakers pro tempore: Samuel S. Cox (N. Y.), appointed for Feb. 17, May 12 and June 19, 1876, and Milton Saylor (Ohio), appointed for June 4, 1876. ⁷ Died 1934 after adjournment of 2nd session of 73rd Congress. ⁸ Died during 2d session of 74th Congress. ⁹ Died during 3d session of 76th Congress.

The White House

Source: National Park Service.

The White House, the official residence of the President, is located on Pennsylvania Avenue in Washington, D. C. The site covering about 18 acres was selected by President Washington and Pierre Charles L'Enfant, and the architect was James Hoban. The design of the mansion is said to have been suggested by the Duke of Leinster's Palace in Ireland. The cornerstone was laid Oct. 13, 1792, and the first residents were President and Mrs. John Adams in Nov., 1800. The building was fired by the British in 1814, and the sandstone exterior was painted white during the course of reconstruction.

The rooms for public functions are on the first floor; on the second and third are the President's apartments. The most celebrated public room is the East Room, where formal receptions take place. Other public rooms are the Red Room, the Green Room, and the

Blue Room. The State Dining Room is used for formal dinners.

The Executive Office, a three-story structure at the west end of the West Terrace, was added to the original building in 1902 to accommodate the President's office staff, and several additions have since been made. In 1942, a three-story building was erected at the end of the East Terrace, and now serves as the White House main entrance. In 1948, a second-story balcony was added to the White House inside the Ionic pillars of the south portico.

From Nov., 1948, to Mar., 1952, the White House was closed for social engagements and sightseers because of a full-scale renovation of the building. The walls were retained and strengthened, and the interior was rebuilt. There are now 132 rooms instead of the former 62.

THE DECLARATION OF INDEPENDENCE

IN CONGRESS, JULY 4, 1776

THE UNANIMOUS DECLARATION of the thirteen united STATES OF AMERICA.

WHEN in the Course of human events it becomes necessary for one people to dissolve the political bands which have connected them with another, and to assume among the powers of the earth, the separate and equal station to which the Laws of Nature and of Nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness.—That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed,—That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security.—Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid world.

He has refused his Assent to Laws, the most wholesome and necessary for the public good.

He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.

He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their Public Records, for the sole purpose of fatiguing them into compliance with his measures.

He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.

He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the dangers of invasion from without, and convulsions within.

NOTE: On April 12, 1776, the legislature of North Carolina authorized its delegates to the Continental Congress to join with others in a declaration of separation from Great Britain; the first colony to instruct its delegates to take the actual initiative was Virginia on May 15. On June 7, 1776, Richard Henry Lee of Virginia offered a resolution to the Congress to the effect "that these United Colonies are, and of right ought to be, free and independent States. . . ." A committee, consisting of Thomas Jefferson, John Adams, Benjamin Franklin, Robert R. Livingston and Roger

Sherman was organized to "prepare a declaration to the effect of the said first resolution." The Declaration of Independence was adopted on July 4, 1776.

Most delegates signed the Declaration August 2, but George Wythe (Va.) signed August 27; Richard Henry Lee (Va.), Elbridge Gerry (Mass.) and Oliver Wolcott (Conn.) in September; Matthew Thornton (N. H.), not a delegate until September, in November; and Thomas McKean (Del.), although present on July 4, not until 1781 by special permission, having served in the army in the interim.

He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.

He has erected a multitude of New Offices, and sent hither swarms of Officers to harass our people, and eat out their substance.

He has kept among us, in times of peace, Standing Armies without the Consent of our legislatures.

He has affected to render the Military independent of and superior to the Civil Power.

He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:

For quartering large bodies of armed troops among us:

For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all parts of the world:

For imposing Taxes on us without our Consent:

For depriving us in many cases, of the benefits of Trial by Jury:

For transporting us beyond Seas to be tried for pretended offences:

For abolishing the free System of English Laws in a neighbouring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.

He is at this time transporting large Armies of foreign Mercenaries to compleat the works of death, desolation and tyranny, already begun with circumstances of Cruelty & Perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.

He has excited domestic insurrections amongst us, and has endeavoured to bring on the inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare, is an undistinguished destruction of all ages, sexes and conditions.

In every stage of these Oppressions We have Petitioned for Redress in the most humble terms: Our repeated Petitions have been answered only by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people.

Nor have We been wanting in attentions to our Brittish brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.

WE, THEREFORE, the Representatives of the UNITED STATES OF AMERICA, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be

FREE AND INDEPENDENT STATES; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do.—And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor.

JOHN HANCOCK.

New Hampshire.

Josiah Bartlett,
Wm. Whipple,
Matthew Thornton.

Rhode Island.

Step. Hopkins,
William Ellery.

Connecticut.

Roger Sherman,
Sam'l Huntington,
Wm. Williams,
Oliver Wolcott.

New York.

Wm. Floyd,
Phil. Livingston,
Frans. Lewis,
Lewis Morris.

New Jersey.

Richd. Stockton,
Jno. Witherspoon,
Fras. Hopkinson,
John Hart,
Abra. Clark.

Pennsylvania.

Robt. Morris,
Benjamin Rush,
Benj. Franklin,
John Morton,
Geo. Clymer,
Jas. Smith,
Geo. Taylor,
James Wilson,
Geo. Ross.

Massachusetts-Bay.

Saml. Adams,
John Adams,
Robt. Treat Paine,
Elbridge Gerry.

Delaware.

Caesar Rodney,
Geo. Read,
Tho. M'Kean.

Maryland.

Samuel Chase,
Wm. Paca,
Thos. Stone,
Charles Carroll of Carrollton.

Virginia.

George Wythe,
Richard Henry Lee,
Th. Jefferson,
Benj. Harrison,
Ths. Nelson, Jr.,
Francis Lightfoot Lee,
Carter Braxton.

North Carolina.

Wm. Hooper,
Joseph Hewes,
John Penn.

South Carolina.

Edward Rutledge,
Thos. Heyward, Junr.,
Thomas Lynch, Junr.,
Arthur Middleton.

Georgia.

Button Gwinnett,
Lyman Hall,
Geo. Walton.

IN CONGRESS

JANUARY, 18, 1777.

Ordered:

That an authenticated copy of the Declaration of Independency, with the names of the Members of Congress subscribing the same, be sent to each of the United States, and that they be desired to have the same put on record.

By order of Congress.

Attest, CHAS. THOMSON, *Secy.* A true copy. JOHN HANCOCK, *Presidt.*

The Statue of Liberty

The Statue of Liberty ("Liberty Enlightening the World") is a 225-ton copper female figure, 152 ft. 5 in. in height, facing the ocean from Liberty* Island in New York Harbor. The right hand holds aloft a torch, and the left hand carries a tablet upon which is inscribed: "July 4, 1776."

The statue was designed by Frédéric Auguste Bartholdi, at the request of the French government, as a present to the U. S. to commemorate the centennial of American independence. It cost \$450,000.

The pedestal, 151 ft. 1 in. in height, was erected by the U. S., and its cost of \$350,000 was met by popular subscription in this country. The cornerstone was laid Aug.

* Called Bedloe's Island prior to 1956.

5, 1884, and the unveiling of the statue took place Oct. 28, 1886.

On a tablet inside the main entrance of the pedestal is engraved the following sonnet, written by Emma Lazarus:

The New Colossus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon hand
Glows world-wide welcome; her mild eyes com-
mand
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door."

CONSTITUTION of the UNITED STATES OF AMERICA

THE oldest federal constitution in existence was framed by a convention of delegates from twelve of the thirteen original states in Philadelphia in May 1787, Rhode Island failing to send a delegate. George Washington presided over the session, which lasted until September 17, 1787. The draft (originally a preamble and seven Articles) was submitted to all thirteen states and was to become effective when ratified by nine states. It went into effect on the first Wednesday in March 1789, having been ratified by New Hampshire, the ninth state to approve, on June 21, 1788. The states ratified the Constitution in the following order:

Delaware	December 7, 1787	South Carolina	May 23, 1788
Pennsylvania	December 12, 1787	New Hampshire	June 21, 1788
New Jersey	December 18, 1787	Virginia	June 25, 1788
Georgia	January 2, 1788	New York	July 26, 1788
Connecticut	January 9, 1788	North Carolina	November 21, 1789
Massachusetts	February 6, 1788	Rhode Island	May 29, 1790
Maryland	April 28, 1788		

Outline of the Constitution

ARTICLE I

SEC. 1. Legislative powers; in whom vested.

SEC. 2. House of Representatives, how and by whom chosen—Qualifications of a Representative—Representatives and direct taxes, how apportioned—Enumeration—Vacancies to be filled—Power of choosing officers, and of impeachment.

SEC. 3. Senators, how and by whom chosen—How classified—State Executive, when to make temporary appointments, in case, etc.—Qualifications of a Senator—President of the Senate, his right to vote—President pro tem., and other officers of the Senate, how chosen—Power to try impeachments—When President is tried, Chief Justice to preside—Sentence.

SEC. 4. Times, etc., of holding elections, how prescribed—At least one Session in each year.

SEC. 5. Membership—Quorum—Adjournments—Rules—Power to punish or expel—Journal—Time of adjournments, how limited, etc.

SEC. 6. Compensation—Privileges—Disqualification in certain cases.

SEC. 7. House to originate all revenue bills—Veto—Bill may be passed by two-thirds of each house, notwithstanding, etc.—Bill, not returned in ten days, to become a law—Provisions as to orders, concurrent resolutions, etc.

SEC. 8. Powers of Congress.

SEC. 9. Provision as to migration or importation of certain persons—Habeas Corpus—Bills of attainder, etc.—Taxes, how apportioned—No export duty—No commercial preference—Money, how drawn from treasury, etc.—No titular nobility—Officers not to receive presents, etc.

SEC. 10. States prohibited from the exercise of certain powers.

ARTICLE II

SEC. 1. President; his term of office—Electors of President; number and how appointed—Electors to vote on same day—Qualification of President—On whom his duties devolve in case of his removal, death, etc.—President's compensation—His oath of office.

SEC. 2. President to be commander in chief—He may require opinions of Cabinet Officers, etc., may pardon—Treaty-making power—Nomination of certain officers—When President may fill vacancies.

SEC. 3. President shall communicate to Congress—He may convene and adjourn Congress, in case of disagreement, etc.—Shall receive ambassadors, execute laws, and commission officers.

SEC. 4. All civil offices forfeited for certain crimes.

ARTICLE III

SEC. 1. Judicial powers—Tenure—Compensation.

SEC. 2. Judicial power; to what cases it extends—Original jurisdiction of Supreme Court—Appellate—Trial by jury, etc.—Trial, where.

SEC. 3. Treason defined—Proof of—Punishment of.

ARTICLE IV

SEC. 1. Each State to give credit to the public acts, etc., of every other State.

SEC. 2. Privileges of citizens of each State—Fugitives from justice to be delivered up—Persons held to service having escaped, to be delivered up.

SEC. 3. Admission of new States—Power of Congress over territory and other property.

SEC. 4. Republican form of government guaranteed—Each State to be protected.

ARTICLE V

Constitution; how amended—Proviso.

ARTICLE VI

Certain debts, etc., declared valid—Supremacy of Constitution, treaties, and laws of the United States—Oath to support Constitution, by whom taken—No religious test.

ARTICLE VII

What ratification shall establish Constitution.

AMENDMENTS

- I. Religious establishment prohibited—Freedom of speech, of the press, and right to petition.
- II. Right to keep and bear arms.
- III. No soldier to be quartered in any house, unless, etc.
- IV. Right of search and seizure regulated.
- V. Provisions concerning prosecution, trial and punishment—Private property not to be taken for public use, without compensation.
- VI. Further provision respecting criminal prosecutions.
- VII. Right of trial by jury secured.

VIII. Excessive bail or fines and cruel punishments prohibited.

IX. Rule of construction of Constitution.

X. Same subject; rights of States.

XI. Same subject; judicial powers construed.

XII. Manner of choosing President and Vice President.

XIII. Slavery abolished.

XIV. Citizenship; representation—Public debt.

XV. Right of suffrage—By whom exercised.

XVI. Taxes on incomes.

XVII. Election of Senators—Filling of vacancies.

XVIII. Prohibition.

XIX. Suffrage; not to be denied because of sex.

XX. Commencement of terms of President, Vice President and members of Congress; time of assembling of Congress.

XXI. Repeal of Prohibition.

XXII. No person to serve as President for more than two terms.

The Constitution of the United States of America

PREAMBLE.—WE THE PEOPLE of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

ARTICLE I

Section 1

Legislative powers vested in Congress.—All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2

Composition of the House of Representatives.—1. The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

Qualifications of Representatives.—2. No Person shall be a Representative who shall not have attained to the Age of twenty-five Years, and been seven Years a Citizen

of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Apportionment of Representatives and direct taxes—census.*—3. [Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons.] The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

Filling of vacancies in representation.—

4. When vacancies happen in the Representation from any State, the Executive

* The clause included in brackets is amended by the 14th Amendment, Section 2.

Authority thereof shall issue Writs of Election to fill such Vacancies.

Selection of officers; power of impeachment.—5. The House of Representatives shall chuse their Speaker and other Officers; and shall have the sole Power of Impeachment.

Section 3*

The Senate.—[1. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.]

Classification of Senators; filling of vacancies.—2. Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the Expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one-third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments [until the next Meeting of the Legislature, which shall then fill such Vacancies].

Qualification of Senators.—3. No Person shall be a Senator who shall not have attained to the Age of thirty Years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

Vice President to be President of Senate.—4. The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

Selection of Senate officers; President pro tempore.—5. The Senate shall chuse their other Officers, and also a President pro tempore, in the Absence of the Vice President, or when he shall exercise the Office of President of the United States.

Senate to try impeachments.—6. The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in cases of impeachment.—7. Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and en-

joy any Office of honor, Trust, or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, according to Law.

Section 4

Control of congressional elections.—1. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of chusing Senators.

Time for assembling of Congress.—2. The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.

Section 5

Each house to be the judge of the election and qualifications of its members; regulations as to quorum.—1. Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

Each house to determine its own rules.—2. Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behaviour, and, with the Concurrence of two thirds, expel a Member.

Journals and yeas and nays.—3. Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

Adjournment.—4. Neither House, during the Session of Congress shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section 6

Compensation and privileges of Members of Congress.—1. The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the

* The 1st paragraph of this section and as much of the 2nd paragraph as relates to filling vacancies are amended by the 17th Amendment.

† Amended by the 20th Amendment, Section 2.

Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

Incompatible offices; exclusions.—2. No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been increased during such time; and no Person holding any Office under the United States, shall be a Member of either House during his Continuance in Office.

Section 7

Revenue bills to originate in House.—1. All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

Manner of passing bills; veto power of President.—2. Every Bill which shall have passed the House of Representatives and the Senate, shall, before it becomes a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by Yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

Concurrent orders or resolutions, to be passed by President.—3. Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section 8

General powers of Congress.*

The Congress shall have Power.—1. To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

Borrowing of money.—2. To borrow Money on the credit of the United States;

Regulation of commerce.—3. To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

Naturalization and bankruptcy.—4. To establish a uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

Money, weights and measures.—5. To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

Counterfeiting.—6. To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

Post offices.—7. To establish Post Offices and post Roads;

Patents and copyrights.—8. To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

Inferior courts.—9. To constitute Tribunals inferior to the supreme Court;

Piracies and felonies.—10. To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

War; marque and reprisal.—11. To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

Armies.—12. To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

Navy.—13. To provide and maintain a Navy;

Land and naval forces.—14. To make Rules for the Government and Regulation of the land and naval Forces;

Calling out militia.—15. To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

Organizing, arming and disciplining militia.—16. To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be

* By the 16th Amendment, Congress is given the power to lay and collect taxes on incomes.

employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

Exclusive legislation over District of Columbia.—17. To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings;—And

To enact laws necessary to enforce Constitution.—18. To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

Section 9

Migration or importation of certain persons not to be prohibited before 1808.—1. The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.

Writ of habeas corpus not to be suspended; exception.—2. The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.

Bills of attainder and ex post facto laws prohibited.—3. No Bill of Attainder or ex post facto Law shall be passed.

Capitation and other direct taxes.—4. No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.*

Exports not to be taxed.—5. No Tax or Duty shall be laid on Articles exported from any State.

No preference to be given to ports of any State; interstate shipping.—6. No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.

Money, how drawn from treasury; finan-

cial statements to be published.—7. No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

Titles of nobility not to be granted; acceptance by government officers of favors from foreign powers.—8. No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State.

Section 10

Limitations of the powers of the several States.—1. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

State imposts and duties.—2. No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing its inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Control of the Congress.

Further restrictions on powers of States.

—3. No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

ARTICLE II

Section 1

The President; the executive power.—1. The executive Power shall be vested in a President of the United States of America. He shall hold his Office during the Term of four Years, and, together with the Vice President, chosen for the same Term, be elected, as follows

Appointment and qualifications of presidential electors.—2. Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and

* See the 16th Amendment.

Representatives to which the State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector.

Original method of electing the President and Vice-President.*—[The Electors shall meet in their respective States, and vote by Ballot for two Persons, of whom one at least shall not be an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately chuse by Ballot one of them for President; and if no person have a Majority, then from the five highest on the List the said House shall in like Manner chuse the President. But in chusing the President, the Votes shall be taken by States, the Representation from each State having one Vote; A quorum for this Purpose shall consist of a Member or Members from two thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice President. But if there should remain two or more who have equal Votes, the Senate should chuse from them by Ballot the Vice President.]

Congress may determine time of choosing electors and day for casting their votes.—

3. The Congress may determine the Time of chusing the Electors, and the Day on which they shall give their Votes; which Day shall be the same throughout the United States.

Qualifications for the office of President.†

—4. No Person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any Person be eligible to that Office who shall not have attained to the Age of thirty five Years, and been fourteen Years a Resident within the United States.

Filling vacancy in the office of Presi-

dent.‡—5. In Case of the Removal of the President from Office, or of his Death, Resignation, or Inability to discharge the Powers and Duties of the said Office, the same shall devolve on the Vice President, and the Congress may by Law provide for the Case of Removal, Death, Resignation or Inability, both of the President and Vice President, declaring what Officer shall then act as President, and such Officer shall act accordingly, until the Disability be removed, or a President shall be elected.

Compensation of the President.—6. The President shall, at stated Times, receive for his Services, a Compensation, which shall neither be increased nor diminished during the Period for which he shall have been elected, and he shall not receive within that Period any other Emolument from the United States, or any of them.

Oath to be taken by the President.—7. Before he enter on the Execution of his Office, he shall take the following Oath or Affirmation:—"I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

Section 2

The President to be commander-in-chief of army and navy and head of executive departments; may grant reprieves and pardons.—1. The President shall be Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States; he may require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any subject relating to the Duties of their respective Offices, and he shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment.

President may, with concurrence of Senate, make treaties, appoint ambassadors, etc.; appointment of inferior officers, authority of Congress over.—2. He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in

* This clause has been superseded by the 12th Amendment.

† For qualifications of the Vice President, see 12th Amendment.

‡ Amended by the 20th Amendment, Sections 3 and 4.

the Courts of Law, or in the Heads of Departments.

President may fill vacancies in office during recess of Senate.—3. The President shall have Power to fill up all Vacancies that may happen during the Recess of the Senate, by granting Commissions which shall expire at the End of their next Session.

Section 3

President to give advice to Congress; may convene or adjourn it on certain occasions; to receive ambassadors, etc.; have laws executed and commission all officers.—He shall from time to time give to the Congress Information of the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient; he may, on extraordinary Occasions, convene both Houses, or either of them, and in Case of Disagreement between them, with Respect to the Time of Adjournment, he may adjourn them to such Time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take Care that the Laws be faithfully executed, and shall Commission all the Officers of the United States.

Section 4

All civil officers removable by impeachment.—1. The President, Vice President and all civil Officers of the United States, shall be removed from Office on Impeachment for, and Conviction of, Treason, Bribery, or other high Crimes and Misdemeanors.

ARTICLE III

Section 1

Judicial powers; how vested; term of office and compensation of judges.—The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office.

Section 2

Jurisdiction of Federal courts.*—1. The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of Admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and

Citizens of another State;—between Citizens of different States,—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

Original and appellate jurisdiction of Supreme Court.—2. In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

Trial of all crimes, except impeachment, to be by jury.—3. The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

Section 3

Treason defined; conviction of.—1. Treason against the United States, shall consist only in levying War against them, or, in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

Congress to declare punishment for treason; proviso.—2. The Congress shall have power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person attainted.

ARTICLE IV

Section 1

Each State to give full faith and credit to the public acts and records of other States.—Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof.

Section 2

Privileges of citizens.—1. The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

Extradition between the several States.—2. A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on Demand of the executive

* This section is abridged by the 11th Amendment.

Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime.

Persons held to labor or service in one State, fleeing to another, to be returned.*

—3. No Person held to Service or Labour in one State, under the Laws thereof, escaping into another, shall, in Consequence of any Law or Regulation therein, be discharged from such Service or Labour, but shall be delivered up on Claim of the Party to whom such Service or Labour may be due.

Section 3

New States.—1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the Jurisdiction of any other State; nor any State be formed by the Junction of two or more States, or Parts of States, without the Consent of the Legislatures of the States concerned as well as of the Congress.

Regulations concerning territory.—2. The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims of the United States, or of any particular State.

Section 4

Republican form of government and protection guaranteed the several States.—The United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and on Application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic Violence.

ARTICLE V

Ways in which the Constitution can be amended.—The Congress, whenever two thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as Part of this Constitution, when ratified by the Legislatures of three fourths of the several States, or by Conventions in three fourths thereof, as the one or the other Mode of Ratification may be proposed by the Congress; Provided that no Amendment which may be made prior to the Year One thousand eight hundred and eight shall in any Manner affect the first and fourth Clauses in the Ninth Section of the first Article; and that no State, without its Consent, shall be deprived of its equal Suffrage in the Senate.

ARTICLE VI

Debts contracted under the confederation secured.—1. All Debts contracted and Engagements entered into, before the Adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

Constitution, laws and treaties of the United States to be supreme.—2. This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

Who shall take constitutional oath; no religious test as to official qualification.—3. The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation, to support this Constitution; but no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States.

ARTICLE VII

Constitution to be considered adopted when ratified by nine States.—The Ratification of the Conventions of nine States shall be sufficient for the Establishment of this Constitution between the States so ratifying the Same.

Done in Convention by the Unanimous Consent of the States present the Seventeenth Day of September in the Year of our Lord one thousand seven hundred and Eighty seven and of the Independence of the United States of America the Twelfth. In witness whereof We have hereunto subscribed our Names.

Go. WASHINGTON

President and Deputy from Virginia

NEW HAMPSHIRE

John Langdon Nicholas Gilman

MASSACHUSETTS

Nathaniel Gorham Rufus King

CONNECTICUT

Wm Saml Johnson Roger Sherman

NEW YORK

Alexander Hamilton

NEW JERSEY

Wm Livingston Wm Paterson
David Brearley Jona: Dayton

PENNSYLVANIA

B Franklin Thomas Mifflin
Robt Morris Geo. Clymer
Thos FitzSimons Jared Ingersoll
James Wilson Gouv Morris

DELAWARE

Geo: Read Gunning Bedford Jun
John Dickinson Richard Bassett
Jacob Broom

MARYLAND

James McHenry Dan of St Thos Jenifer
Danl Carroll

* See the 13th Amendment.

VIRGINIA

John Blair —

James Madison Jr.

NORTH CAROLINA

Wm Blount
Hu Williamson

Richd Dobbs Spaight

SOUTH CAROLINA

J. Rutledge
Charles PinckneyCharles Cotesworth Pinckney.
Pierce Butler

GEORGIA

William Few
Abr Baldwin
Attest: William Jackson, Secretary.

AMENDMENTS TO THE CONSTITUTION OF THE UNITED STATES

(Amendments I to X inclusive, popularly known as the Bill of Rights, were proposed and sent to the states by the first session of the First Congress. They became effective Dec. 15, 1791.)

ARTICLE I

Freedom of religion, speech, of the press, and right of petition.—Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

ARTICLE II

Right of people to bear arms not to be infringed.—A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

ARTICLE III

Quartering of troops.—No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

ARTICLE IV

Persons and houses to be secure from unreasonable searches and seizures.—The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

ARTICLE V

Trials for crimes; just compensation for private property taken for public use.—No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

ARTICLE VI

Civil rights in trials for crimes enumerated.—In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

ARTICLE VII

Civil rights in civil suits.—In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

ARTICLE VIII

Excessive bail, fines and punishments prohibited.—Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

ARTICLE IX

Reserved rights of people.—The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

ARTICLE X

Powers not delegated, reserved to states and people respectively.—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

ARTICLE XI

(The proposed amendment was sent to the states Mar. 5, 1794, by the Third Congress. It became effective Jan. 8, 1798.)

Judicial power of United States not to extend to suits against a State.—The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

ARTICLE XII

(The proposed amendment was sent to the states Dec. 12, 1803, by the Eighth Congress. It became effective Sept. 25, 1804.)

Present mode of electing President and Vice-President by electors.*—The Electors shall meet in their respective states, and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate;—The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted;—The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each State having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.—The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

ARTICLE XIII

(The proposed amendment was sent to the states Feb. 1, 1865, by the Thirty-eighth Congress. It became effective Dec. 18, 1865.)

Section 1

Slavery prohibited.—Neither slavery nor

involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2

Congress given power to enforce this article.—Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XIV

(The proposed amendment was sent to the states June 16, 1866, by the Thirty-ninth Congress. It became effective July 28, 1868.)

Section 1

Citizenship defined; privileges of citizens.—All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2

Apportionment of Representatives.—Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice-President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3

Disqualification for office; removal of disability.—No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, sha-

* Amended by the 20th Amendment, Sections 3 and 4.

have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4

Public debt not to be questioned; payment of debts and claims incurred in aid of rebellion forbidden.—The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5

Congress given power to enforce this article.—The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

ARTICLE XV

(The proposed amendment was sent to the states Feb. 27, 1869, by the Fortieth Congress. It became effective Mar. 30, 1870.)

Section 1

Right of certain citizens to vote established.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

Section 2

Congress given power to enforce this article.—The Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XVI

(The proposed amendment was sent to the states July 12, 1909, by the Sixty-first Congress. It became effective Feb. 25, 1913.)

Taxes on income; Congress given power to lay and collect.—The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

ARTICLE XVII

(The proposed amendment was sent to the states May 16, 1912, by the Sixty-second Congress. It became effective May 31, 1913.)

Election of United States Senators; filling of vacancies; qualifications of electors.

1. The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof, for

six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

2. When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: *Provided*, That the legislature of any State may empower the executive thereof to make temporary appointment until the people fill the vacancies by election as the legislature may direct.

3. This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

ARTICLE XVIII*

(The proposed amendment was sent to the states Dec. 18, 1917, by the Sixty-fifth Congress. It was approved by three-quarters of the states by Jan. 16, 1919, and became effective Jan. 16, 1920.)

Manufacture, sale or transportation of intoxicating liquors, for beverage purposes, prohibited.—1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

Congress and the several States given concurrent power to pass appropriate legislation to enforce this article.—2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

Provisions of article to become operative, when adopted by three-fourths of the States.—3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by Congress.

ARTICLE XIX

(The proposed amendment was sent to the states June 4, 1919, by the Sixty-sixth Congress. It became effective Aug. 26, 1920.)

The right of citizens to vote shall not be denied because of sex.—The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any States on account of sex.

Congress shall have power to enforce this article by appropriate legislation.

ARTICLE XX

(The proposed amendment, sometimes called the "Lame Duck Amendment," was sent to the states Mar. 3, 1932, by the Seventy-second Congress. It became effective Feb. 5, 1933; but, in accordance with Section 5, Sections 1 and 2 did not go into effect until Oct. 15, 1933.)

* Repealed by the 21st Amendment.

Section 1

Terms of President, Vice-President, Senators and Representatives.—The terms of the President and Vice-President shall end at noon on the twentieth day of January, and the terms of Senators and Representatives at noon on the third day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

Section 2

Time of assembling Congress.—The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the third day of January, unless they shall by law appoint a different day.

Section 3

Filling vacancy in office of President.—If, at the time fixed for the beginning of the term of the President, the President-elect shall have died, the Vice-President-elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President-elect shall have failed to qualify, then the Vice-President-elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President-elect nor a Vice-President-elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice-President shall have qualified.

Section 4

Power of Congress in Presidential succession.—The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice-President whenever the right of choice shall have devolved upon them.

Section 5

Time of taking effect.—Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

Section 6

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the

several States within seven years from the date of its submission.

ARTICLE XXI

(The proposed amendment was sent to the states Feb. 20, 1933, by the Seventy-second Congress. It became effective Dec. 5, 1933.)

Section 1

Repeal of Prohibition Amendment.—The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

Section 2

Transportation of intoxicating liquors.—The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

Section 3

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by convention in the several States, as provided in the Constitution, within seven years from the date of the submission thereof to the States by the Congress.

ARTICLE XXII

(The proposed amendment was sent to the states Mar. 21, 1947, by the Eightieth Congress. It became effective Feb. 26, 1951.)

Section 1

Limit to number of terms a President may serve.—No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

Section 2

Ratification.—This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

Lincoln's Gettysburg Address

The Battle of Gettysburg, one of the most noted battles of the Civil War, was fought on July 1, 2, and 3, 1863. On November 19, 1863, the field was dedicated as a national cemetery by President Lincoln in a two-minute speech that was to become immortal. At the time of its de-

livery the speech was relegated to the inside pages of the papers, while a two-hour address by Edward Everett, the leading orator of the time, caught the headlines. The following is the text of the address revised by President Lincoln from his own notes:

FOURSCORE and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The Monroe Doctrine

The Monroe Doctrine was announced in President James Monroe's message to Congress, during his second term on December 2, 1823 in part as follows:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

Minority Presidents

Thirteen candidates have become President of the U. S. with a popular vote less than 50 per cent of the total vote cast. It should be noted, however, that in elections before 1872, presidential electors were not chosen by popular vote in all states. Adams' election in 1824 was by the House of Representatives, which chose him over Jackson, who had a plurality of both electoral and popular votes, but not a majority in the electoral college.

Besides Jackson in 1824, only two other candidates receiving the largest popular vote have failed to gain a majority in the electoral college—Samuel J. Tilden (D) in 1876 and Grover Cleveland (D) in 1888.

The "minority" Presidents follow:

Year	President	Electoral	Popular vote
		Pct.	Pct.
1824	John Q. Adams.....	31.8	29.8
1844	James K. Polk (D).....	61.8	49.3
1848	Zachary Taylor (W).....	56.2	47.3
1856	James Buchanan (D).....	58.7	45.3
1860	Abraham Lincoln (R).....	59.4	39.9
1876	Rutherford B. Hayes (R).....	50.1	47.9
1880	James A. Garfield (R).....	57.9	48.3
1884	Grover Cleveland (D).....	54.6	48.8
1888	Benjamin Harrison (R).....	58.1	47.8
1892	Grover Cleveland (D).....	62.4	46.0
1912	Woodrow Wilson (D).....	81.9	41.8
1916	Woodrow Wilson (D).....	52.1	49.3
1948	Harry S. Truman (D).....	57.1	49.5

The Mayflower Compact

On September 6, 1620, the *Mayflower*, a sailing vessel of about 180 tons, started her memorable voyage from Plymouth, England with about 100* pilgrims aboard, bound for Virginia to establish a private permanent colony in North America. Arriving at Provincetown, Mass., on November 11 (November 21, new style calendar),

forty-one of the passengers signed the famous "Mayflower Compact" as the boat lay at anchor in that Cape Cod harbor. A small detail of the pilgrims, led by William Bradford, assigned to select a place for permanent settlement landed at what is now Plymouth, Mass., on December 21, N.S.

The text of the compact follows:

IN THE NAME OF GOD, Amen. We, whose names are underwritten, the Loyal Subjects of our dread Sovereign Lord, King James, by the Grace of God, of Great Britain, France and Ireland, King, Defender of the Faith, &

Having undertaken for the Glory of God, and Advancement of the Christian Faith, and the Honour of our King and Country, a voyage to plant the first colony in the northern Parts of Virginia; do by these Presents, solemnly and mutually in the Presence of God and one of another, covenant and combine ourselves together into a civil Body Politick, for our better Ordering and Preservation, and Furtherance of the Ends aforesaid; And by Virtue hereof to enact, constitute, and frame, such just and equal Laws, Ordinances, Acts, Constitutions and Offices, from time to time, as shall be thought most meet and convenient for the General good of the Colony; unto which we promise all due Submission and Obedience.

In WITNESS whereof we have hereunto subscribed our names at Cape Cod the eleventh of November, in the Reign of our Sovereign Lord, King James of England, France and Ireland, the eighteenth, and of Scotland the fifty-fourth. Anno Domini, 1620

John Carver
Digery Priest
William Brewster
Edmund Margesson
John Alden
George Soule
James Chilton
Francis Cooke
Josias Fletcher
John Ridgate
Christopher Martin

William Mullins
Thomas English
John Howland
Stephen Hopkins
Edward Winslow
Gilbert Winslow
Miles Standish
Richard Bitteridge
Francis Eaton
John Tilly
John Billington

Thomas Tinker
Samuel Fuller
Richard Clark
John Allerton
Richard Warren
Edward Liester
William Bradford
Thomas Williams
Isaac Allerton
Peter Brown
John Turner

Edward Tilly
John Craxton
Thomas Rogers
John Goodman
Edward Fuller
Richard Gardiner
William White
Edward Doten

* Historians differ as to whether 100, 101, or 102 passengers were aboard.

The Early Congresses

At the urging of Massachusetts and Virginia, the First Continental Congress met in Philadelphia on September 5, 1774, and was attended by representatives of all the colonies except Georgia. Patrick Henry of Virginia declared: "The distinctions between Pennsylvanians, New Yorkers and New Englanders are no more. I am not a Virginian but an American." This Congress, which adjourned October 26, 1774, passed intercolonial resolutions calling for extensive boycott by the colonies against British trade.

The following year, most of the delegates from the colonies were chosen by popular election to attend the Second Continental Congress, which assembled in Philadelphia on May 10. As war had already begun between the colonies and England, the chief problems before the Congress were the procuring of military supplies, the establishment of an army and proper defenses, the issuing of continental bills of credit, etc. On June 15, 1775, George Washington

was elected to command the Continental army. Congress adjourned Dec. 12, 1776.

Other Continental Congresses were held in Baltimore (1776-77), Philadelphia (1777), Lancaster, Pa. (1777), York, Pa. (1777-78) and Philadelphia (1778-81).

In 1781, the Articles of Confederation, although establishing a league of the thirteen states rather than a strong central government, provided for the continuance of Congress. Known thereafter as the Congress of the Confederation, it held sessions in Philadelphia (1781-83), Princeton, N. J. (1783), Annapolis, Md. (1783-84) and Trenton, N. J. (1784). Five sessions were held in New York City between the years 1785 and 1789.

The Congress of the United States, established by the ratification of the Constitution, held its first meeting on Mar. 4, 1789, in New York City. Several sessions of Congress were held in Philadelphia, and the first meeting in Washington, D. C., was on Nov. 17, 1800.

Presidents of the Continental Congresses

Name	Elected	Born	Died
Peyton Randolph, Va.	Sept. 5, 1774	c.1721	1775
Henry Middleton, S. C.	Oct. 22, 1774	1717	1784
Peyton Randolph, Va.	May 10, 1775	c.1721	1775
John Hancock, Mass.	May 24, 1775	1737	1793
Henry Laurens, S. C.	Nov. 1, 1777	1724	1792
John Jay, N. Y.	Dec. 10, 1778	1745	1829
Samuel Huntington, Conn.	Sept. 28, 1779	1731	1796
Thomas McKean, Del.	July 10, 1781	1734	1817
John Hanson, Md.	Nov. 5, 1781	1715	1783
Elias Boudinot, N. J.	Nov. 4, 1782	1740	1821
Thomas Mifflin, Pa.	Nov. 3, 1783	1744	1800
Richard Henry Lee, Va.	Nov. 30, 1784	1732	1794
John Hancock, Mass.*	Nov. 23, 1785	1737	1793
Nathaniel Gorham, Mass.	June 6, 1786	1738	1796
Arthur St. Clair, Pa.	Feb. 2, 1787	1734	1818
Cyrus Griffin, Va.	Jan. 22, 1788	1748	1810

* Resigned May 29, 1786, never having served, because of continued illness.

The Star-Spangled Banner

Francis Scott Key, 1814

O say, can you see, by the dawn's early light,
What so proudly we hail'd at the twilight's last gleaming?
Whose broad stripes and bright stars, thro' the perilous fight,
O'er the ramparts we watch'd, were so gallantly streaming?
And the rockets' red glare, the bombs bursting in air,
Gave proof thro' the night that our flag was still there.

O say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, half conceals, half discloses?

Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream:

'T is the star-spangled banner: O, long may it wave
O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion,
A home and a country should leave us no more?
Their blood has wash'd out their foul footsteps' pollution.

No refuge could save the hireling and slave
From the terror of flight or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave.

O thus be it ever when free-men shall stand
Between their lov'd home and the war's desolation;
Blest with vict'ry and peace, may the heav'n-rescued land
Praise the Pow'r that hath made and preserv'd us a nation!

Then conquer we must, when our cause it is just,
And this be our motto: "In God is our trust!"
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

ON SEPTEMBER 13, 1814, Francis Scott Key visited the British fleet in Chesapeake Bay to secure the release of Dr. William Beanes, who had been captured after the burning of Washington, D. C. The release was secured, but Key was detained on ship overnight during the shelling of Fort McHenry, one of the forts defending Baltimore. In the morning, he was so delighted to see the American flag still flying over the fort that he began a poem to commemorate the occasion. Entitled "The Star-Spangled Banner," the poem soon attained wide popularity as sung to the tune "Anacreon in Heaven." The origin of this tune is obscure, but it may have been written by John Stafford Smith, a British composer born in 1750. "The Star-Spangled Banner" was officially made the National Anthem by Congress in 1931, although already adopted as such by the Army and Navy.

History of the Flag

Source: *Encyclopaedia Britannica.*

THE FIRST OFFICIAL AMERICAN flag, the Continental or Grand Union flag, was displayed on Prospect Hill, Jan. 1, 1776, in the American lines besieging Boston. It had thirteen alternate red and white stripes, with the British Union Jack in the upper left corner.

On June 14, 1777, the Continental Congress adopted the design for a new flag, which actually was the Continental flag with the red cross of St. George and the white cross of St. Andrew replaced on the blue field by thirteen stars, one for each state. No rule was made as to the arrangement of the stars, and while they were usually shown in a circle, there were various other designs. It is uncertain when the new flag was first flown, but its first official announcement is believed to have been on Sept. 3, 1777.

The first public assertion that Betsy Ross made the first Stars and Stripes appeared in a paper read before the Historical Society of Pennsylvania on March 14, 1870, by William J. Canby, a grandson. However, Mr. Canby on later investigation found no official documents of any action by Congress on the flag before June 14, 1777. Betsy Ross' own story, according to her daughter, was that Washington, Robert Morris and George Ross, as representatives of Congress, visited her in Philadelphia in June 1776, showing her a rough draft of the flag and asking her if she could make one. However, the only actual record of the manufacture of flags by Betsy Ross is a voucher in Harrisburg, Pa., for 14 pounds

* 11 states formally seceded, and unofficial groups in Kentucky and Missouri adopted ordinances of secession. On this basis, these two states were admitted to the Confederacy, although the official state governments remained in the Union.

and some shillings for flags for the Pennsylvania navy.

On Jan. 13, 1794, Congress voted to add two stars and two stripes to the flag in recognition of the admission of Vermont and Kentucky to the Union. By 1818, there were twenty states in the Union, and as it was obvious that the flag would soon become unwieldy, Congress voted April 18 to return to the original thirteen stripes and to indicate the admission of a new state simply by the addition of a star the following July 4. The last two stars were added July 4, 1912, for New Mexico and Arizona.

The first Confederate flag, adopted in 1861 by the Confederate convention in Montgomery, Ala., was called the Stars and Bars; but because of its similarity in color to the American flag, there was much confusion in the Battle of Bull Run. To remedy this situation, Gen. G. T. Beauregard suggested a battle flag, which was used by the Southern armies throughout the war. The flag consisted of a red field on which was placed a blue cross of St. Andrew separated from the field by a white fillet and adorned with thirteen* white stars for the Confederate states. In May 1863, at Richmond, an official flag was adopted by the Confederate Congress. This flag was white and twice as long as wide the union, two-thirds the width of the flag, contained the battle flag designed for Gen. Beauregard. A broad transverse stripe of red was added Feb. 4, 1865, so that the flag might not be mistaken for a signal of truce.

Flag Etiquette

(Public Law 829—77th Congress)

JOINT RESOLUTION

To amend Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display, and use of the flag of the United States of America."

Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America," be, and the same is hereby amended to read as follows:

That the following codification of existing rules and customs pertaining to the display and use of the flag of the United States of America be, and it is hereby, established for the use of such civilians or civilian groups or organizations as may

not be required to conform with regulations promulgated by one or more executive departments of the Government of the United States.

Sec. 2. (a) It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flag staffs in the open. However, the flag may be displayed at night upon special occasions when it is desired to produce a patriotic effect.

(b) The flag should be hoisted briskly and lowered ceremoniously.

(c) The flag should not be displayed on days when the weather is inclement.

(d) The flag should be displayed on all days when the weather permits, especially on New Year's Day, January 1; Inauguration Day, January 20; Lincoln's Birthday, February 12; Washington's Birthday, Feb.

ruary 22; Army Day*, April 6; Easter Sunday (variable); Mother's Day, second Sunday in May; Memorial Day (half-staff until noon), May 30; Flag Day, June 14; Independence Day, July 4; Labor Day, first Monday in September; Constitution Day, September 17; Columbus Day, October 12; Navy Day*, October 27; Armistice Day, November 11†; Thanksgiving Day, fourth Thursday in November; Christmas Day, December 25; such other days as may be proclaimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays.

(e) The flag should be displayed daily, weather permitting, on or near the main administration building of every public institution.

(f) The flag should be displayed in or near every polling place on election days.

(g) The flag should be displayed during school days in or near every schoolhouse.

Sec. 3. That the flag, when carried in a procession with another flag or flags, should be either on the marching right; that is, the flag's own right, or, if there is a line of other flags, in front of the center of that line.

(a) The flag should not be displayed on a float in a parade except from a staff, or as provided in subsection (i).

(b) The flag should not be draped over the hood, top, sides, or back of a vehicle or of a railroad train or a boat. When the flag is displayed on a motorcar, the staff shall be fixed firmly to the chassis or clamped to the radiator cap.

(c) No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America, except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy. No person shall display the flag of the United Nations or any other national or international flag equal, above, or in a position of superior prominence or honor to, or in place of, the flag of the United States at any place within the United States or any Territory or possession thereof: *Provided*, That nothing in this section shall make unlawful the continuance of the practice heretofore followed of displaying the flag of the United Nations in a position of superior prominence or honor, and other national flags in positions of equal prominence or honor, with that of the flag of the United States at the headquarters of the United Nations.††

(d) The flag of the United States of America, when it is displayed with another

flag against a wall from crossed staffs, should be on the right, the flag's own right, and its staff should be in front of the staff of the other flag.

(e) The flag of the United States of America should be at the center and at the highest point of the group when a number of flags of States or localities or pennants of societies are grouped and displayed from staffs.

(f) When flags of States, cities, or localities, or pennants of societies are flown on the same halyard with the flag of the United States, the latter should always be at the peak. When the flags are flown from adjacent staffs, the flag of the United States should be hoisted first and lowered last. No such flag or pennant may be placed above the flag of the United States or to the right of the flag of the United States.

(g) When flags of two or more nations are displayed, they are to be flown from separate staffs of the same height. The flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

(h) When the flag of the United States is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of a building, the union of the flag should be placed at the peak of the staff unless the flag is at half-staff. When the flag is suspended over a sidewalk from a rope extending from a house to a pole at the edge of the sidewalk, the flag should be hoisted out, union first, from the building.

(i) When the flag is displayed otherwise than by being flown from a staff, it should be displayed flat, whether indoors or out, or so suspended that its folds fall as free as though the flag were staffed.

(j) When the flag is displayed over the middle of the street, it should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

(k) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, if it is displayed in the chancel of a church, or on the speaker's platform in a public auditorium, the flag should occupy the position of honor and be placed at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag so displayed in the chancel or on the platform should be placed at the clergyman's or speaker's left as he faces the congregation or audience. But when the flag is displayed from a staff in a church or public auditorium elsewhere than in the chancel or on the platform it shall be placed in the position of honor at the right of the congregation or audience as they face the chancel or platform. Any other flag so displayed should be placed on

* In 1949, Army Day and Navy Day were abandoned; Armed Forces Day is celebrated the 3rd Saturday of May. † In 1954, changed to Veterans Day. †† Section 3 (c) was amended by Public Law 107, approved July 9, 1953, to designate the position of the United Nations flag.

the left of the congregation or audience as they face the chancel or platform.

(l) The flag should form a distinctive feature of the ceremony of unveiling a statue or monument, but it should never be used as the covering for the statue or monument.

(m) The flag, when flown at half-staff, should be first hoisted to the peak for an instant and then lowered to the half-staff position. The flag should be again raised to the peak before it is lowered for the day. By "half-staff" is meant lowering the flag to one-half the distance between the top and bottom of the staff. Crepe streamers may be affixed to spearheads or flag-staffs in a parade only by order of the President of the United States.

(n) When the flag is used to cover a casket, it should be so placed that the union is at the head and over the left shoulder. The flag should not be lowered into the grave or allowed to touch the ground.

SEC. 4. That no disrespect should be shown to the flag of the United States of America, the flag should not be dipped to any person or thing. Regimental colors, State flags, and organization or institutional flags are to be dipped as a mark of honor.

(a) The flag should never be displayed with the union down save as a signal of dire distress.

(b) The flag should never touch anything beneath it, such as the ground, the floor, water, or merchandise.

(c) The flag should never be carried flat or horizontally, but always aloft and free.

(d) The flag should never be used as drapery of any sort whatsoever, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white, and red, always arranged with the blue above, the white in the middle, and the red below, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

(e) The flag should never be fastened, displayed, used, or stored in such a manner as will permit it to be easily torn, soiled, or damaged in any way.

(f) The flag should never be used as a covering for a ceiling.

(g) The flag should never have placed upon it, nor on any part of it, nor attached to it any mark, insignia, letter, word, figure, design, picture, or drawing of any nature.

(h) The flag should never be used as a receptacle for receiving, holding, carrying, or delivering anything.

(i) The flag should never be used for

advertising purposes in any manner whatsoever. It should not be embroidered on such articles as cushions or handkerchiefs and the like, printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discard; or used as any portion of a costume or athletic uniform. Advertising signs should not be fastened to a staff or halyard from which the flag is flown.

(j) The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning.

SEC. 5. That during the ceremony of hoisting or lowering the flag or when the flag is passing in a parade or in a review, all persons present should face the flag, stand at attention, and salute. Those present in uniform should render the military salute. When not in uniform, men should remove the headdress with the right hand, holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart. The salute to the flag in the moving column should be rendered at the moment the flag passes.

SEC. 6. That when the national anthem is played and the flag is not displayed, all present should stand and face toward the music. Those in uniform should salute at the first note of the anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the flag is displayed, all present should face the flag and salute.

SEC. 7. That the pledge of allegiance* to the flag, "I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation under God,† indivisible, with liberty and justice for all," be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing the headdress. Persons in uniform shall render the military salute.

SEC. 8. Any rule or custom pertaining to the display of the flag of the United States of America, set forth herein, may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander-in-Chief of the Army and Navy of the United States whenever he deems it to be appropriate or desirable; and any such alteration or additional rule shall be set forth in a proclamation.

Approved, December 22, 1942.

* The idea originated in 1892 with James B. Upham, an editor of *Youth's Companion*. The claim that Upham was also the author is disputed by some who credit Francis Bellamy. † The phrase "under God" was added to the pledge on June 14, 1954.

AMERICAN ECONOMY



ALTHOUGH WE account for only 6.3% of the world's population, we own almost 50% of its wealth. We make, grow, build, sell, buy and use more goods and services than any other country in the world. Of our population of over 174 million persons, about 64 million are employed, and over 43 million are enrolled in our schools and colleges (1957). Each year we spend more than \$280 billion on personal goods and services, of which \$85 billion go for food, tobacco and alcohol alone. According to the American Automobile Association we spend \$12 billion on vacations every year. Our personal savings amount to over \$20 billion annually, in addition to

which 4 out of every 5 families are covered by life insurance. Of our 50 million dwelling units, 55% are occupied by their owners. The millions of acres of fertile farmland produce more food than we can eat. Our productive capacity is the largest in the world: we own 29% of the world's railroad mileage, 70% of its automobiles, 51% of its trucks, 52% of its radios, 41% of its electric power output, 38% of its steel. Our natural resources are tremendous: each year we produce 42% of the world's output of petroleum and about 30% of its coal. Our merchant fleets have outstripped Britain's, and we have the greatest volume of foreign trade.

Gross National Product or Expenditure (in millions of dollars)

Source: U. S. Department of Commerce.

Item	1929	1933	1938	1945	1948	1951	1957	1958*
Gross national product	104,436	55,964	85,227	213,558	259,426	328,975	440,328	425,800
GNP in constant (1954) dollars	181,944	126,606	174,965	314,044	297,205	341,965	406,957	390,642
Personal consumption expenditures	78,952	46,392	64,641	121,699	178,313	209,805	284,442	286,200
Durable goods	9,212	3,469	5,686	8,105	22,723	29,471	39,926	36,300
Nondurable goods	37,677	22,251	33,985	73,222	98,737	110,135	137,971	139,800
Services	32,063	20,672	24,970	40,372	56,853	70,199	106,545	110,100
Gross private domestic investment	16,231	1,391	6,661	10,430	43,087	56,334	65,292	49,600
New construction	8,707	1,431	3,960	3,833	19,454	24,811	36,483	36,300
Producers' durable equipment	5,850	1,589	3,644	7,654	18,925	21,290	27,856	22,900
Change in business inventories	1,674	-1,629	-943	-1,057	4,708	10,233	953	-9,500
Net foreign investment	771	150	1,109	-1,438	1,929	229	3,462	500
Government purchases	8,482	8,031	12,816	82,867	36,097	62,607	87,132	89,500
Federal	1,311	2,018	5,280	75,923	20,867	40,915	50,832	50,900†
National security	1,344	2,022	5,286	.....	15,832	37,180	46,537	45,600
Other					5,570	4,154	4,784	.....
Less: Government sales	33	4	6	2,158	535	419	489	.....
State and local	7,171	6,013	7,536	8,071	15,230	21,692	36,300	38,600

* First quarter, revised. † Less government sales.

National Income by Distributive Shares (in millions of dollars)

Source: U. S. Department of Commerce.

Type of share	1929	1933	1939	1945	1948	1951	1953	1957	1957 % of total
National income	87,814	40,159	72,753	181,248	223,487	279,313	305,573	363,951	100.0
Compensation of employees	51,085	29,539	48,108	123,181	140,969	180,327	208,812	254,637	70.0
Wages and salaries	50,423	28,997	45,941	117,577	135,214	170,788	198,030	238,120	65.4
Supplements to wages and salaries	662	542	2,167	5,604	5,755	9,539	10,782	16,517	4.5
Income of unincorporated enterprises and inventory valuation adjustment	14,759	5,599	11,610	30,835	40,194	42,329	40,723	43,001	11.8
Business and professional	8,791	3,166	7,293	19,011	22,405	25,995	27,445	31,403	8.6
Farm	5,968	2,433	4,317	11,824	17,789	16,334	13,278	11,598	3.2
Rental income of persons	5,425	1,971	2,742	5,634	7,297	9,431	10,528	11,837	3.2
Corporate profits and inventory valuation adjustment	10,100	-1,992	5,689	18,413	30,848	40,954	37,314	41,878	11.5
Net interest	6,445	5,042	4,604	3,185	4,179	6,272	8,196	12,598	3.5

How Consumers Spend Their Dollar

Source: U. S. Department of Commerce.

Group	(in millions of dollars)							1957 % of total	
	1929	1932	1939	1945	1947	1949	1953		
Food ¹ and tobacco.....	21,374	12,719	21,072	45,924	58,274	58,384	70,606	81,641	28.7
Clothing, accessories, and jewelry.....	11,018	5,973	8,299	20,247	22,952	23,451	26,668	29,719	29,985
Personal care.....	1,116	817	1,004	2,077	2,253	2,324	2,973	3,726	3,963
Housing.....	11,421	8,964	8,940	12,205	15,567	19,295	27,485	32,767	35,367
Household operation.....	10,509	6,675	9,461	14,865	23,949	25,651	32,275	38,875	39,984
Medical care and death expenses.....	3,620	2,575	3,386	5,902	7,685	9,003	12,200	15,293	16,399
Personal business.....	5,221	3,111	3,725	4,787	5,707	7,015	10,783	14,520	15,736
Transportation.....	7,496	3,924	6,250	6,694	15,390	20,864	29,619	33,776	36,345
Recreation.....	4,327	2,439	3,446	6,314	9,352	10,122	12,892	15,161	15,908
Private education and research.....	664	571	628	871	1,411	1,683	2,244	2,848	3,047
Religious and welfare activities.....	1,196	973	938	1,572	2,032	2,235	2,778	3,441	3,607
Foreign travel and remittances—net.....	799	467	317	1,621	837	1,131	2,126	2,399	2,460
Total personal consumption expenditures.....	78,761	49,208	67,466	123,079	165,409	181,158	232,649	269,400	284,442

¹ Expenditure for food included consumer expenditure for alcoholic beverages of the following amount: 1957, \$9,140,000,000.

Consumers' Price Index (1947-49 = 100)

Source: U. S. Bureau of Labor Statistics.

Items	1947	1948	1951	1953	1957	1958*
All items.....	95.5	102.8	111.0	114.4	120.2	123.3
Total food.....	95.9	104.1	112.6	112.8	115.4	120.8
Apparel.....	97.1	103.5	106.9	104.8	106.9	106.8
Housing total.....	95.0	101.7	112.4	117.7	125.6	127.5
Rent.....	94.4	100.7	113.1	124.1	135.2	137.1
Gas and electricity.....	97.6	100.0	103.1	106.6	113.0	115.9
Solid fuels and fuel oil.....	88.8	104.4	116.4	123.9	137.4	136.7
Housefurnishings.....	97.2	103.2	111.2	107.9	104.6	103.9
Household operation.....	97.2	102.6	109.0	115.3	127.5	130.7
Transportation.....	90.6	100.9	118.4	129.7	136.0	138.7
Medical care.....	94.9	100.9	111.1	121.3	138.0	142.3
Personal care.....	97.6	101.3	110.5	112.8	124.4	128.3
Reading and recreation.....	95.5	100.4	106.5	108.0	112.2	117.0
Other goods and services.....	96.1	100.5	109.7	118.2	125.5	127.2

* March.

U. S. Consumption of Principal Foods*

(in pounds per capita)

Source: U. S. Department of Agriculture.

Foods	1935-39 avg.	1947-49 avg.	1958*
Red meats.....	125.3	146.4	151.0
Poultry meats.....	15.3	21.7	30.6
Eggs ¹	296.0	380.0	348.0
Fluid milk and cream.....	330.0	359.0	350.0
Cheese.....	5.5	6.9	7.9
Butter.....	16.8	10.5	8.6
Margarine.....	2.8	5.5	8.7
Fats and oils ²	28.9	28.9	30.4
Fresh fruits.....	137.1	130.3	96.0
Processed fruits ⁴	25.1	41.5	47.3
Fresh vegetables.....	139.0	150.0	129.0
Processed vegg. ⁴	30.0	41.4	44.5
Potatoes, sweetpots.....	149.3	124.3	111.0
Sugar.....	96.7	93.5	97.0
Corn products.....	37.4	33.5	26.4
Wheat flour.....	157.0	135.0	118.0
Coffee.....	13.9	18.0	15.7
Cocoa.....	4.3	4.0	3.9

Consumer Credit

(in millions of dollars)

Source: Federal Reserve Board.

End of year	Installment Non- Total installment Charge credit credit* accounts			
	Total	credit	installment	accounts
1929.....	6,444	3,151	1,691	1,602
1932.....	3,567	1,521	1,026	1,020
1935.....	4,911	2,694	1,034	1,183
1939.....	7,222	4,503	1,305	1,414
1940.....	8,338	5,514	1,353	1,471
1943.....	4,901	2,136	1,325	1,440
1946.....	8,384	4,172	2,136	2,076
1949.....	17,305	11,590	2,920	2,795
1950.....	21,395	14,703	3,401	3,291
1952.....	27,401	19,403	3,987	4,011
1953.....	31,243	23,005	4,114	4,124
1955.....	38,648	29,020	5,084	4,544
1956.....	41,863	31,552	5,609	4,702
1957.....	44,776	34,105	5,911	4,760
1958†.....	42,562	32,983	6,051	3,528

¹ Number, not pounds. ² Excludes butter and margarine. ³ Preliminary estimates. ⁴ Pack year. ⁵ Civilian consumption only.

* Single payment loans and service credit. † End of March.

Minutes of Working Time Required for Purchase of Selected Consumer Items October 1955

Source: National Industrial Conference Board.

Food	U. S. ¹	Austria ²	Belgium ³	Denmark ⁴	France ⁵	West Germany	Italy ⁶	U. K. ⁷	Canada ⁸	Mexico ⁹	Japan ¹⁰	Philippines ¹¹	U.S.S.R.
Wheat, (1 kg.).....	7	32	35	14	43	25	42	18	7	36	44	93	59
Rice (1 kg.).....	12	56	41	31	70	33	51	...	...	60	71	27	200
Read, white (1 kg.).....	12	43	17	20	27	30	44	12	12	50	51	52	17 ¹⁴
Beef, sirloin (1 kg.).....	34	286	253	96	309	156	329	145	75	188	350	261	200 ¹⁴
Pork, loin chops (1 kg.).....	56	233	191	108	211	172	350	139	63	260	378	137	369
Fresh fish (1 kg.) misc. types	29	158	130	26	83	57	278	62	34	191	95	140	297
Butter (1 kg.).....	49	257	216	105	332	225	403	127	58	327	598	329	425 ¹⁴
Milk, pasteurized (1 liter)...	7	25	16	8	18	13	29	15	8	33	59	55	33 ¹⁴
Eggs, fresh (one).....	2	10	8	5	11	8	13	7	3	13	11	7	12
Apples, eating (1 kg.).....	9	23	24	23	42	34	41	36	9	88	...	99	196
Cabbage (1 kg.).....	5	12	9	6	16	9	...	13	5	48	20	31	81
Potatoes (1 kg.).....	3	8	5	7	7	6	13	9	3	31	16	65	13 ¹⁴
Coffee (500 gr.).....	32	304	147	124	194	340	298	...	49	150	...	44	501 ¹²
Tea (500 gr.).....	47 ¹³	395	308	194	586	518	468	113	57	920	155	311	620 ¹⁴
Vegetable margarine (1 kg.)...	20	106	55	40	129	65	...	56	30	172	279	107	334
Sugar (1 kg.).....	7	45	27	13	42	44	83	22	8	27	129	23	144 ¹⁴
Cigarettes (20).....	7	35	21	45	33	54	51	54	14	12	32	37	...
Electricity, lighting (1 kwh.)	2	4	8	1	11	7	14	2	1	7	9	6	...
Coal (50 kg.).....	44	378	234	127	348	115	738	96	54	448	398	...	...

¹ 46 cities. ² Vienna. ³ 3 cities. ⁴ Copenhagen. ⁵ 4 cities. ⁶ 8 large cities. ⁷ 7 cities. ⁸ 33 cities. ⁹ Mexico City. ¹⁰ 5 cities. ¹¹ Manila. ¹² 1952 figures. ¹³ Estimated. ¹⁴ 1957 figures.

New Construction Activity, by Type

(in millions of dollars)

Source: U. S. Department of Commerce and U. S. Department of Labor.

Activity	1929	1933	1940	1945	1949	1956	1957
Total new construction activity.....	10,793	2,879	8,682	5,633	22,789	46,060	47,255
New private construction activity.....	8,307	1,231	5,504	3,235	16,384	33,242	33,313
Residential (nonfarm).....	3,625	470	2,985	1,100	8,267	17,632	16,571
New dwelling units.....	3,040	290	2,560	720	7,257	13,490	12,160
Additions and alterations.....	340	145	335	340	825	3,695	3,912
Nonhousekeeping.....	245	35	90	40	185	447	499
Nonresidential building, except farm and public utility ..	2,694	406	1,025	1,020	3,228	8,817	9,138
Industrial.....	949	176	442	642	972	3,084	3,162
Commercial ¹	1,135	130	348	203	1,027	3,631	3,570
Other.....	610	100	235	175	1,229	2,102	2,406
Public utility.....	1,578	261	771	827	3,323	5,113	5,830
Railroad.....	510	94	167	264	352	427	450
Telephone and telegraph.....	354	45	122	117	533	1,066	1,080
Other public utility.....	714	115	482	446	2,438	3,620	4,300
Farm construction.....	307	49	240	267	1,488	1,560	1,590
All other private.....	103	45	33	21	78	120	184
New public construction activity.....	2,486	1,648	3,628	2,398	6,405	12,818	13,942
Residential.....	...	...	200	80	359	292	510
Nonresidential building.....	659	230	615	937	2,068	4,072	4,481
Industrial.....	...	2	164	755	177	458	458
Educational.....	389	52	156	59	934	2,549	2,832
Hospital and institutional.....	101	49	54	85	477	362	333
Other.....	169	127	241	38	480	772	858
Military and Naval.....	19	36	385	690	137	1,395	1,275
Highway.....	1,266	847	1,302	398	2,131	4,470	4,840
Sewer and water.....	253	95	338	97	619	1,275	1,347
Conservation and development.....	115	359	528	130	793	826	975
All other ²	23	16	260	66	298	488	514

¹ Warehouses, office and loft buildings; stores, restaurants and garages. ² Miscellaneous public service enterprises and all Federal not included elsewhere.

Number of Nonfarm Houses Built*

Source: U. S. Bureau of Labor Statistics, National Bureau of Economic Research.

Year	Houses	Year	Houses
1900.....	204,000	1944.....	169,000
1910.....	475,000	1945.....	226,000
1920.....	247,000	1949.....	1,025,100
1929.....	509,000	1950.....	1,396,000
1933.....	93,000	1952.....	1,127,000
1937.....	336,000	1953.....	1,103,800
1939.....	515,000	1956.....	1,118,000
1943.....	350,000	1957.....	1,041,900

* Data represent new dwelling units started.

Monthly Average Railroad Carloading

(in thousands of cars)

Source: Association of American Railroads.

Year	Total	Year	Total
1920.....	3,760	1947.....	3,760
1925.....	4,269	1948.....	3,800
1929.....	4,402	1949.....	2,900
1932.....	2,348	1950.....	3,400
1939.....	2,826	1951.....	3,400
1940.....	3,030	1952.....	3,400
1942.....	3,564	1953.....	3,400
1943.....	3,535	1955.....	3,400
1944.....	3,617	1956.....	3,400
1945.....	3,492	1957.....	2,900

Industrial Production Indexes, by Groups

(1947-49 average = 100)

Source: Board of Governors of the Federal Reserve System.

Industry	1950	1951	1957	1958*	Industry	1950	1951	1957	1958*
Durable manufactures.....	116	128	160	140	Leather and products.....	101	94	104	104
Ferrous metals.....	114	129	132	98	Paper and allied products...	118	125	158	158
Nonferrous metals.....	116	116			Printing and publishing.....	111	113	141	141
Fabricated metal products.....	115	122	139	125	Chemicals and allied products.....	121	136	184	184
Machinery.....	114	130	168	149	Petroleum and coal products	110	122	141	141
Transportation equipment.....	120	135	213	191	Food and beverage products	103	105	130	130
Instruments and related products.....	114	128	172	164	Tobacco manufactures.....	101	107	111	111
Stone, clay and glass products	118	131	155	132	Total manufactures.....	113	121	000	000
Lumber and products.....	113	113	114	104	Minerals.....	105	115	128	128
Furniture and misc.....	117	116	120	112	Fuels.....	103	114	133	133
Nondurable manufactures.....	111	114	130	126	Stone & earth minerals.....	111	121	143	143
Textile mill products.....	111	107	99	94	Total industrial production...	112	120	145	145
Apparel and allied products...	108	105	111	109					
Rubber products.....	119	119	135	120					

* Average of first 3 months.

Electric Energy Output of Utilities*

(in millions of kilowatt hours)

Source: Federal Power Commission.

Year	Total	Ownership					% Public to total	Source of energy	
		Privately owned	Publicly owned	Municipal	Federal	Co-operatives, power districts, state projects		Fuels	Fuels % of total
1920.....	39,405	37,716	1,689	1,373	58	94	4.3	23,644	60.0
1929.....	92,180	87,514	4,667	3,498	300	451	5.1	59,533	64.6
1933.....	81,740	76,668	5,072	3,583	458	654	6.2	48,283	59.1
1939.....	127,642	115,078	12,564	5,688	5,476	944	9.8	84,078	65.9
1943.....	217,759	180,247	37,511	9,223	24,485	3,156	17.2	144,127	66.2
1951.....	370,673	301,845	68,828	17,617	44,120	6,204	18.6	270,922	73.1
1953.....	442,665	354,273	88,393	21,625	58,064	8,704	20.0	337,431	76.0
1955.....	547,037	420,869	126,169	25,852	89,064	11,253	23.1	434,063	79.1
1956.....	600,668	459,015	141,653	28,006	100,711	12,937	23.6	478,639	79.7
1957†.....	631,380	480,828	150,552	27,924	109,177	13,451	23.8	501,240	79.4

* Output by industrial establishments was as follows (in millions of kilowatt hours): 1939—33,667; 1943—49,195; 1951—62,685; 1953—71,505; 1955—81,972; 1956—84,136; 1957 preliminary—84,326. † Preliminary.

Fuel Production

Source: U. S. Dept. of Interior, U. S. Dept. of Commerce, and American Gas Association.

Year	Coke, in thousands of short tons	Anthracite coal in thousands of short tons	Bituminous coal, in thousands of short tons	Natural gas, in millions of therms (produced and marketed) ¹	Manufactured gas, in millions of therms ²	Crude petroleum, in thousands of 42-gal. barrels
1929.....	59,884	73,828	534,989	20,490 ^a	2,070 ^a	1,007,323
1933.....	27,589	49,541	333,631	16,640 ^a	1,820	905,656
1939.....	44,327	51,487	394,855	26,220	1,830	1,264,962
1941.....	65,187	56,368	514,149	29,780	1,990	1,402,228
1945.....	67,308	54,934	577,617	41,960	2,600	1,713,655
1949.....	63,637	42,702	437,868	55,770	2,680	1,841,940
1951.....	79,331	42,670	533,645	76,660	2,435	2,244,529
1953.....	78,467	30,023	453,000	90,270	1,756	2,359,998
1955.....	80,820	26,364	470,004	101,104	1,571	2,484,516
1956.....	81,498	28,578	500,505	108,381	1,434	2,617,432
1957.....	82,464	25,476	489,996	114,896	1,167	2,616,780

¹ Includes all natural gas in sales of natural gas mixed with manufactured gas. ² Includes all manufactured gas products produced and purchased by gas utilities. ^a Estimated.

Metals Production (in short tons)

Source: American Iron & Steel Institute, Iron Age, American Zinc Institute, American Bureau of Metal Statistics and U. S. Bureau of Mines.

Year	Pig iron and ferroalloys	Steel ingots and castings	Rolled iron and steel products		Aluminum (primary)	Copper (smelter output from domestic ore)	Zinc (slab smelter output, all grades)*	Refined lead (from domestic ore; anti-monial lead excluded)
			Total	Plates and sheets				
1929.....	47,727,661	63,205,490	45,997,746	13,928,670	113,986	1,001,432	631,601	672,498
1932.....	9,835,227	15,322,901	11,705,219	3,956,505	52,444	272,005	213,531	255,337
1939.....	35,677,097	52,798,714	39,067,553	13,931,919	163,545	712,675	538,198	420,967
1941.....	56,686,604	82,839,259	62,324,187	20,293,071	309,067	966,072	863,955	470,517
1943.....	62,769,947	88,836,512	63,292,673	22,543,040	920,179	1,092,939	971,873	406,544
1945.....	54,919,029	79,701,648	59,811,669	19,314,316	495,060	722,894	799,520	356,535
1948.....	61,911,559	88,640,470	69,191,952	25,694,480	623,456	834,813	850,105	339,413
1949.....	54,916,785	77,978,176	60,882,387	23,470,886	603,462	752,750	870,113	404,449
1951.....	72,448,543	105,199,848	81,911,320	31,869,683	836,881	928,330	931,833	342,644
1952.....	63,353,955	93,168,039	71,348,528	27,251,852	937,331	925,359	961,430	383,358
1953.....	77,250,168	111,609,719	85,943,724	35,699,732	1,252,013	926,448	971,191	328,012
1954.....	59,806,242	88,311,652	68,464,640	28,406,447	1,460,565	835,472	868,242	322,271
1955.....	79,263,865	117,036,085	90,657,553	39,708,255	1,565,721	1,014,442	1,031,018	321,132
1956.....	77,575,458	115,216,149	89,284,317	38,709,832	1,678,954	1,114,285	1,062,954	340,000
1957.....	79,339,671	112,714,996	85,886,891	35,575,848	1,647,698	1,076,928	1,057,452	333,492

* From 1940 includes both foreign and domestic ores.

Business Population

(in thousands of concerns)

Source: U. S. Department of Commerce, Dun & Bradstreet.

Item	1929	1933	1941	1943	1946	1949	1951	1953	1956	1957
Total operating businesses ¹	3,029.0	2,782.1	3,269.6	2,905.1	3,487.2	4,000.0	4,108.5	4,205.7	4,294.2	4,322.0
Manufacturing.....	257.0	166.8	236.6	244.9	285.9	320.5	327.2	326.6	311.8	309.0
Wholesale trade.....	148.1	141.8	194.4	172.6	292.2	261.8	273.1	285.0	294.9	297.0
Retail trade.....	1,327.0	1,291.2	1,558.3	1,329.1	1,555.4	1,794.3	1,834.0	1,859.2	1,874.2	1,897.0
Service industries.....	590.9	574.9	614.4	553.6	656.5	736.8	735.5	741.9	755.7	761.0
Contract construction.....	233.8	185.4	186.4	157.2	243.8	347.5	388.6	432.3	483.0	478.0
All others ²	472.0	422.1	479.5	447.7	520.3	539.1	543.0	560.6	574.7	580.0
New entrants.....	(³)	(³)	290.0 ^a	146.0 ^a	617.4 ^a	331.1 ^a	363.2 ^a	340.5 ^a	380.8 ^a	(³)
Discontinued businesses.....	(³)	(³)	270.7 ^a	337.0 ^a	208.7 ^a	306.5 ^a	309.3 ^a	334.0 ^a	338.9 ^a	(³)
Commercial & industrial failures ⁴ ..	22.9	19.9	11.8	3.2	1.1	9.2	8.1	8.9	12.7	13.7

¹ 1929-51, annual average; 1953-54, as of June 30. ² Annual total. ³ Not available. ⁴ Closures resulting in a known loss to creditors. ⁵ Includes transportation, communications, public utilities, finance, insurance, real estate, and mining and quarrying. ⁶ Jan.-June 1957 new entrants, 211.0; discontinued businesses, 176.0.

Consumer Durable Goods Output

Source: *Electrical Merchandising*; *MART Magazine*, Caldwell-Clements, Inc., Radio-Electronics-Television Manufacturers Association; Automobile Manufacturers Association.

Year	Electric clothes washers		Electric ranges		Electric vacuum cleaners		Electric refrigerators		Radio sets		Television sets		Passenger cars	
	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Number sold, in thousands	Average retail price	Factory sales, in thousands	Average retail price
1900.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	\$1,225
1910.....	3 ¹	\$ 75 ¹	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	181	1,190
1920.....	600	120	40	.....	1,024	\$50	5 ²	\$550 ²	100 ³	\$50 ³	.....	.....	1,906	940
1925.....	736	141	85	\$176	1,056	62	75	425	2,000	83	.....	.....	3,735	650
1929.....	956	113	173	165	1,253	50	778	292	4,428	136	.....	.....	4,587	620
1932.....	570	59	60	150	447	40	798	195	3,000	47	.....	.....	1,135	540
1937.....	1,465	72	405	134	1,210	56	2,310	171	8,065	56	.....	.....	3,916	570
1941.....	1,892	79	728	142	1,670	56	3,500	155	13,000	35	.....	.....	3,780	670
1946.....	2,047	121	577	186	2,290	68	2,100	207	14,031	50	7	\$323	2,149	920
1948.....	4,196	173	1,600	235	3,361	77	4,766	260	12,260	52	975	393	3,909	1,220
1949.....	3,065	171	1,056	230	2,890	77	4,450	255	7,805	42	3,000	323	5,119	.....
1950.....	4,273	184	1,830	233	3,529	79	6,200	258	9,849	44	7,464	300	6,666	.....
1952.....	3,267	217	1,400	245	2,842	92	4,075	275	7,692	34	5,385	308	4,321	.....
1955.....	4,387	235	1,600	263	3,330	88	4,025	315	7,800	32	7,905	231	7,920	.....
1956.....	4,713	275	1,200	255	3,725	82	3,700	325	8,405	32	7,011	190	5,816	.....
1957.....	4,042	237	940	255	3,275	84	3,350	320	9,800	32	6,600	190	6,113	.....

¹ 1909. ² 1921. ³ 1922.

Wood Pulp, Paper and Lumber

Source: U. S. Bureau of the Census and National Lumber Manufacturers Assn.

Year	Wood pulp (in thousands of short tons)	Paper and paperboard (in thousands of short tons)	Lumber (in millions of board feet)
1919.....	3,518	6,098	34,552
1929.....	4,863	11,140	36,886
1939.....	6,993	13,510	25,148
1941*.....	10,011	17,934	33,613
1943.....	9,060	17,036	34,289
1945.....	10,167	17,371	28,122
1947.....	11,946	21,114	35,404
1948.....	12,872	21,897	36,762
1949.....	12,207	20,315	32,901
1950.....	14,849	24,375	38,902
1952.....	16,473	24,418	37,462
1953.....	17,537	26,540	36,742
1955.....	20,829	29,892	39,108†
1956.....	22,129	31,333	37,526
1957.....	21,808	30,696	33,396

* Coverage for paper and paperboard increased in 1941.
† Subject to revision.

Expenditures for New Plant and

Equipment*

(in millions of dollars)

Source: Securities and Exchange Commission and U. S. Department of Commerce.

Year	Manufacturing and mining	Transportation	All other†	Total
1939.....	2,269	645	2,598	5,512
1945.....	4,366	1,122	3,204	8,692
1946.....	7,217	1,506	6,125	14,848
1947.....	9,394	2,187	9,031	20,612
1948.....	10,016	2,604	9,439	22,059
1949.....	7,941	2,239	9,105	19,285
1950.....	8,198	2,323	10,084	20,605
1952.....	12,617	2,896	10,980	26,493
1955.....	12,396	2,525	13,780	28,701
1956.....	16,195	2,943	15,943	35,081
1957.....	17,200	3,680	16,620	36,900
1958†.....	14,800	2,435	15,765	33,000

* Data exclude agriculture. † Includes electric and gas utilities, trade, service, communications, construction and finance. ‡ First 3 quarters, estimated.

Industrial Production Indexes for Western Europe

Source: United Nations.

(1953 = 100)

Country	1948	1950	1955	1957	Country	1948	1950	1955	1957
Austria.....	54	86	133	146	Italy.....	62	79	118	138
Belgium.....	88	90	116	123	Luxembourg.....	91	92	116	128
Denmark.....	82	98	112	115	Netherlands.....	71	88	118	126
France.....	81	88	121	145	Norway.....	70	87	117	126
Germany (Fed. Rep.).....	40	72	129	147	Sweden.....	90	97	111	118
Greece.....	52	78	130	145	United Kingdom.....	83	94	113	114
Ireland.....	70	91	107	102					

Employment and Unemployment (in millions of persons)

Sources: U. S. Bureau of Labor Statistics, U. S. Bureau of the Census, and U. S. Bureau of Agricultural Economics.

Activity	1929	1932	1941	1943	1945	1950	1953	1957	1958 ¹
Total employment.....	46.7	37.9	50.4	54.5	52.8	60.0	61.9	65.0	62.3
Non-agricultural employment.....	36.8	26.3	41.3	45.4	44.2	52.5	55.4	58.8	57.2
Manufacturing.....	10.5	6.8	13.0	17.4	15.2	14.9	17.3	16.8	15.4
Durable goods.....	...	...	...	6.5	6.3	8.0	10.1	9.8	8.7
Nondurable goods.....	...	...	...	10.9	8.9	6.9	7.2	7.0	6.7
Mining.....	1.1	0.7	.9	.9	.8	.9	.8	0.8	0.8
Construction.....	1.5	1.0	1.8	1.6	1.1	2.3	2.6	3.0	2.5
Transportation and public utilities.....	3.9	2.8	3.2	3.6	3.9	4.0	4.2	4.2	3.9
Trade.....	6.4	4.9	7.6	7.3	7.7	9.5	10.5	11.5	11.2
Retail.....	...	...	...	5.7	5.9	7.0	7.7	8.4	8.1
Wholesale.....	...	...	...	1.6	1.8	2.5	2.8	3.1	3.1
Finance.....	1.4	1.3	1.5	1.4	1.4	1.8	2.0	2.3	2.3
Service.....	3.1	2.7	3.6	3.8	3.9	4.8	5.5	6.5	6.4
Government.....	3.1	3.2	4.6	6.0	6.0	5.9	6.6	7.4	7.5
Other, self-employed, domestic.....	6.9	5.1	5.1	3.4	4.2	8.4	5.9	(*)	(*)
Agricultural employment.....	9.9	9.6	9.1	9.1	8.6	7.5	6.5	6.2	5.1
Unemployment.....	2.0	12.7	5.5	1.1	1.1	3.1	1.5	2.9	5.2
Total civilian labor force.....	48.7	50.6	55.9	55.5	53.9	63.1	63.4	67.9	67.5
Armed forces.....	.3	.3	1.5	8.9	11.3	1.5	(*)	2.8	2.7
Total labor force.....	49.0	50.9	57.4 ²	64.4	65.2	64.6	67.0	70.7	70.2

¹ March. ² Includes 1.9 million employed in public works. ³ Data not available. ⁴ Included in services, transportation and public utilities and retail trade.

Average Earnings and Hours Worked Per Week in Manufacturing Industries

Source: U. S. Department of Labor.

Industry	1947		1949		1951		1953		1957		1958 ²	
	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked	Earn-ings	Hours worked
All manufacturing ¹	\$54.14	40.1	\$54.92	39.2	\$64.71	40.7	\$71.69	40.5	\$82.39	39.8	\$80.64	38.4
Durable goods.....	57.11	40.5	58.03	39.5	69.47	41.6	77.23	41.3	88.66	40.3	86.46	38.6
Primary metal industries.....	61.03	40.1	60.78	38.3	75.12	41.5	84.25	40.9	99.00	39.6	94.21	36.8
Iron and steel foundries.....	58.45	40.7	55.09	37.2	71.66	42.4	76.33	40.6	87.64	39.3	82.76	36.3
Nonferrous foundries.....	59.96	40.0	60.92	39.0	73.74	41.9	80.97	41.1	91.60	40.0	89.24	38.3
Fabricated metal products.....	56.68	40.6	57.82	39.6	68.81	41.7	77.15	41.7	89.16	40.9	86.58	39.0
Hand tools.....	56.07	40.9	54.54	38.6	69.70	42.5	74.70	41.5	83.58	39.8	82.51	38.2
Hardware.....	54.26	40.4	56.28	39.3	66.49	41.3	75.89	41.7	89.35	40.8	85.53	38.7
Structural metal products.....	58.17	41.2	59.90	40.5	71.49	42.3	80.75	42.5	92.99	41.7	90.06	39.5
Electrical machinery.....	55.66	40.1	56.96	39.5	64.84	41.3	71.81	40.8	82.80	40.0	83.46	39.0
Machinery, except electrical.....	60.52	41.2	60.44	39.5	76.38	43.4	82.91	42.3	94.30	41.0	92.12	39.2
Transportation equipment.....	61.58	39.0	64.95	39.2	75.67	40.9	85.28	41.2	98.01	40.5	94.71	38.5
Automobiles.....	61.86	38.4	65.97	38.9	75.45	39.5	87.95	41.1	99.54	40.3	91.64	37.1
Lumber and wood products.....	51.38	41.5	51.72	40.6	59.98	40.8	65.93	40.7	71.86	39.7	69.69	38.5
Furniture & fixtures.....	48.99	41.1	49.48	40.1	57.27	41.2	63.14	41.0	69.60	40.0	67.61	38.2
Stone, clay and glass.....	53.46	40.9	54.45	39.8	63.91	41.5	70.35	40.9	83.03	40.5	80.67	38.6
Nondurable goods.....	50.61	39.6	51.41	38.8	58.46	39.5	63.60	39.5	74.09	39.2	73.15	38.1
Textile—mill products.....	45.59	39.2	44.83	37.7	51.60	38.8	53.57	39.1	58.35	38.9	56.70	37.8
Cotton, silk, synthetic fibers.....	44.36	39.4	42.89	37.2	50.70	39.3	51.09	39.3	55.48	38.8	54.20	37.9
Woolen and worsted goods.....	52.45	40.1	51.19	38.9	57.87	39.1	61.93	39.7	65.28	40.8	62.81	39.5
Apparel and other finished textiles.....	42.79	36.2	41.89	35.8	46.31	35.9	48.41	36.4	53.64	36.0	52.80	35.2
Leather.....	41.66	37.2	41.61	36.6	46.86	36.9	51.65	37.7	57.60	37.4	57.56	36.9
Food.....	51.87	42.0	53.58	41.5	59.92	41.9	66.33	41.2	78.17	40.5	79.20	39.6
Tobacco.....	36.50	38.1	37.25	37.1	43.51	38.5	47.37	38.2	58.91	38.5	59.50	37.9
Paper.....	55.25	42.8	55.96	41.7	65.51	43.1	72.67	43.0	86.29	42.3	85.49	41.1
Printing and publishing.....	66.73	39.3	70.28	38.7	77.21	38.8	85.58	38.9	96.38	38.4	96.51	37.7
Chemicals.....	56.23	41.5	58.63	41.0	67.81	41.6	75.58	41.3	91.24	41.1	91.94	40.5
Petroleum and coal.....	69.23	40.7	72.36	40.4	80.98	40.9	90.17	40.8	108.79	40.9	108.80	40.0
Rubber.....	56.78	39.0	57.79	38.3	68.61	40.6	77.78	40.3	91.76	40.6	86.56	37.8

¹ Average weekly earnings in 1919 = \$23.29, 1929 = \$26.40, 1932 = \$17.86, 1939 = \$24.23. Average hours worked per week in 1914 = 51.0, 1919 = 47.8, 1929 = 45.7, 1932 = 38.2, 1939 = 37.7. ² February.

Average Earnings and Hours Worked Per Week in Nonmanufacturing Industries

Source: U. S. Department of Labor.

Industry	1947		1949		1951		1955		1957	
	Earnings	Hours worked	Earnings	Hours worked	Earnings	Hours worked	Earnings	Hours worked	Earnings	Hours worked
Anthracite mining.....	\$62.77	37.7	\$56.78	30.2	\$66.66	30.3	\$84.50	33.4	\$93.20	31.7
Bituminous coal mining.....	66.59	40.7	63.28	32.6	77.79	35.2	96.26	37.6	110.53	36.6
Metalliferous mining.....	54.63	41.8	61.55	40.9	74.56	43.6	92.42	42.2	98.98	40.9
Quarrying and nonmetallic mining.....	50.54	45.0	56.38	43.3	67.05	45.0	80.99	44.5	87.60	43.8
Telephone.....	44.77	37.4	51.78	38.5	58.26	39.1	72.07	39.6	76.05	39.2
Telegraph.....	53.56	44.6	62.85	44.7	68.24	44.6	78.54	42.0	87.36	41.8
Gas and electric utilities.....	56.69	41.9	63.99	41.5	72.49	41.9	86.52	41.2	95.53	41.0
Street railways and busses.....	57.14	46.8	64.61	44.9	72.23	46.3	80.60	43.1	88.56	43.2
Wholesale trade.....	51.99	41.0	57.55	40.7	64.31	40.7	77.55	40.6	84.42	40.2
Retail trade.....	40.66	40.3	45.93	40.4	50.65	40.2	58.50	39.0	62.87	38.1
Hotels (year-round).....	29.36	45.2	32.84	44.2	35.42	43.2	41.09	41.5	43.52	40.3
Laundries.....	32.71	42.6	34.98	41.5	37.81	41.1	40.70	40.3	43.38	39.8
Dyeing and cleaning.....	38.30	41.9	40.71	41.2	43.99	41.5	47.40	39.5	50.44	38.8
Private building construction.....	63.13	37.6	70.95	36.7	81.47	37.2	96.30	36.1	98.89	35.7

State and Local Government Employment and Payroll: April 1, 1957

Source: U. S. Department of Commerce.

Function	Employees (in thousands)	Payroll (in millions)	Function	Employees (in thousands)	Payroll (in millions)
Total all functions.....	5,608	\$1,614.5	Natural resources.....	123	\$32.8
Education, total.....	2,461	757.8	Sanitation.....	133	39.3
Public schools.....	2,049	651.7	Local parks and recreation.....	85	21.7
Institutions of higher learning.....	382	96.9	Housing and community redevelopment.....	27	8.3
Other.....	30	9.2	Employment security.....	48	16.3
Highways.....	475	134.2	State liquor stores.....	16	4.8
Public welfare.....	110	30.7	Local utilities, total.....	229	80.1
Health.....	76	22.5	General control.....	473	102.8
Hospitals.....	505	122.9	All other.....	220	53.9
Police.....	294	97.6			
Local fire protection.....	201	51.4			

Why Strikes?

Strikes and Lockouts

Source: U. S. Bureau of Labor Statistics.

Major issues	Percentage of total strikes				Year	Strikes and lockouts Number	Workers involved Number (thousands)	Man-days idle Number (thousands)
	1949	1950	1956	1957				
Wages and hours.....	46.6	52.8	47.6	47.1	1885.....	695	258	n.a.
Union organization, wages and hours.....	6.0	5.6	8.6	8.4	1890.....	1,897	373	n.a.
Union organization.....	15.7	13.4	11.6	12.0	1895.....	1,255	407	n.a.
Recognition.....	10.8	9.9	7.9	8.4	1900.....	1,839	568	n.a.
Strengthening bargaining position.....	.5	.5	1.1	.5	1905.....	2,186	302	n.a.
Closed or union shop.....	2.2	1.8	2.0	2.3	1915.....	1,593	n.a.	n.a.
Discrimination.....	1.8	.8	.3	.6	1917.....	4,450	1,227	n.a.
Other.....	.4	.4	.3	.2	1920.....	3,411	1,463	n.a.
Other working conditions.....	25.0	22.0	22.5	22.8	1925.....	1,301	428	n.a.
Job security.....	12.6	12.2	10.9	10.9	1929.....	921	289	5,352
Shop conditions and policies.....	9.7	7.8	10.1	9.4	1930.....	637	183	3,317
Work load.....	2.1	1.5	1.4	2.3	1932.....	841	324	10,502
Other.....	.6	.5	.1	.1	1933.....	1,695	1,168	16,872
Interunion or intraunion matters.....	5.8	5.3	8.3	8.9	1935.....	2,014	1,117	15,456
Sympathy.....	1.4	1.0	1.8	1.7	1939.....	2,613	1,171	17,812
Union rivalry or factionalism.....	1.5	1.6	.7	.7	1943.....	3,752	1,981	13,501
Jurisdiction.....	2.6	2.5	5.6	6.3	1945.....	4,750	3,470	38,025
Other.....	.3	.1	.2	.2	1948.....	3,419	1,960	34,100
Not reported.....	.9	.9	1.3	.8	1949.....	3,606	3,030	50,500
All issues.....	100.0	100.0	100.0	100.0	1952.....	5,117	3,540	59,100
					1956.....	3,825	1,900	33,100
					1957.....	3,673	1,390	16,500

n.a. = not available.

Membership of Leading American Labor Unions, 1956

Source: Bureau of Labor Statistics, Directory of Labor Unions in the United States, 1957.

Name of Union	Affiliation	No. of Members
Amalgamated Clothing Workers.....	AFL-CIO	385,000
Amalgamated Meat Cutters and Butcher Workmen.....	AFL-CIO	310,000
American Federation of Musicians.....	AFL-CIO	256,851
Brotherhood of Locomotive Firemen and Enginemen.....	AFL-CIO	97,000
Brotherhood of Maintenance of Way Employees.....	AFL-CIO	225,000
Brotherhood of Painters, Decorators and Paperhangers.....	AFL-CIO	217,000
Brotherhood of Railroad Trainmen.....	AFL-CIO	217,462
Brotherhood of Railway and Steamship Clerks.....	AFL-CIO	350,000
Building Service Employees' International Union.....	AFL-CIO	230,000
Communications Workers of America.....	AFL-CIO	259,000
Hotel & Restaurant Employees' International Alliance.....	AFL-CIO	441,000
International Association of Machinists.....	AFL-CIO	949,683
International Brotherhood of Boilermakers.....	AFL-CIO	150,750
International Brotherhood of Electrical Workers.....	AFL-CIO	675,000
International Brotherhood of Pulp, Sulphite and Papermill Workers.....	AFL-CIO	165,000
International Brotherhood of Teamsters.....	Ind.	1,368,082
International Hod Carriers', Building and Common Laborers' Union.....	AFL-CIO	465,923
International Ladies' Garment Workers' Union.....	AFL-CIO	450,802
International Union of Mine, Mill and Smelter Workers.....	Ind.	100,000
International Union of Electrical, Radio & Machine Workers.....	AFL-CIO	397,412
International Union of Operating Engineers.....	AFL-CIO	200,000
Chemical & Atomic Workers.....	AFL-CIO	183,000
Retail Clerks.....	AFL-CIO	300,000
United Association of Plumbers and Steam Fitters.....	AFL-CIO	243,763
United Automobile, Aircraft & Agricultural Implement Workers.....	AFL-CIO	1,320,513
United Brotherhood of Carpenters and Joiners.....	AFL-CIO	850,000
United Electrical, Radio and Machine Workers.....	Ind.	100,000
United Mine Workers.....	Ind.	(¹)
United Rubber, Cork, Linoleum and Plastic Workers.....	AFL-CIO	178,017
United Steelworkers.....	AFL-CIO	1,250,000

¹ Not available.

Wholesale and Retail Trade: No. of Establishments, 1948 and 1954

Source: Bureau of Census, Department of Commerce.

Kind of business group	No. of establishments		Kind of business group	No. of establishments	
	1948	1954		1948	1954
Retail trade, total.....	1,771,317	1,721,650	Tobacco and products (except leaf).....	3,019	2,858
Food group.....	504,902	384,616	Dry goods, apparel.....	11,733	9,389
Eating and drinking places.....	346,677	319,657	Furniture, home furnishings.....	3,813	4,042
General merchandise group.....	52,741	76,198	Paper and its products.....	4,044	5,057
Apparel group.....	115,707	119,743	Farm products—raw materials.....	2,594	3,853
Furniture, furnishings, appliance group.....	85,680	91,797	Automotive.....	14,693	15,540
Automotive group.....	86,194	85,953	Electrical goods.....	5,443	7,123
Gasoline service stations.....	188,301	181,747	Hardware, plumbing, heating....	5,901	6,183
Lumber, building, hardware group..	99,043	100,519	Lumber, construction materials..	5,890	10,314
Drug and proprietary stores.....	55,903	56,009	Machinery, equipment & supplies	21,430	12,693
Liquor.....	33,460	31,240	Metals, metalwork (except scrap)	1,803	3,235
Other retail stores.....	164,174	226,903	Waste materials.....	7,717	8,139
Wholesale trade, total.....	243,366	252,318	Other merchant wholesalers.....	15,688	18,505
Merchant wholesalers, total.....	146,518	165,153	Manufacturers' sales branches, offices.....	23,768	22,590
Groceries, confectionery, meats..	17,345	29,795	Petroleum bulk stations, terminals.	29,451	29,189
Farm products.....	13,539	3,853	Agents, brokers.....	24,361	22,131
Beer, wines, distilled spirits.....	7,195	7,309	Assemblers of farm products.....	19,268	13,255
Drugs, chemicals, allied products	4,671	4,579			

Retail Sales by Kind of Business Group

(in millions of dollars)

Source: U. S. Bureau of the Census.

Kind of business	1952		1956		1957	
	Amount	%	Amount	%	Amount	%
Durable-goods stores ¹	\$ 55,270	33.7	\$ 65,810	34.4	\$ 63,460	34.3
Automotive group.....	28,337	17.3	36,121	18.9	38,592	19.3
Motor-vehicle, other automotive dealers.....	26,383	16.1	34,061	17.8	36,300	18.2
Tire, battery, accessory dealers.....	1,944	1.2	2,060	1.1	2,292	1.1
Furniture and appliance group.....	8,926	5.4	10,667	5.6	10,584	5.3
Furniture, home furnishings stores.....	5,255	3.2	6,571	3.4	6,600	3.3
Household appliance, radio stores.....	3,671	2.2	4,096	2.2	3,984	2.0
Lumber, building, hardware group.....	10,200	6.2	11,161	5.8	10,692	5.3
Lumber, building-materials dealers.....	7,572	4.6	8,313	4.3	7,944	4.0
Hardware stores.....	2,628	1.6	2,848	1.5	2,736	1.4
Non-durable goods stores ¹	108,815	66.3	125,660	65.6	131,444	65.7
Apparel group.....	10,633	6.5	11,559	6.0	12,276	6.1
Men's and boys' wear stores.....	2,497	1.5	2,456	1.3	2,484	1.2
Women's apparel, accessory stores.....	4,233	2.6	4,540	2.4	4,920	2.5
Family and other apparel stores.....	2,210	1.3	2,117	1.1	2,784	1.4
Shoe stores.....	1,693	1.1	2,446	1.3	2,088	1.0
Drug and proprietary stores.....	4,717	2.9	5,775	3.0	6,324	3.2
Eating and drinking places.....	12,688	7.7	14,317	7.5	14,796	7.4
Food group ¹	39,771	24.2	45,965	24.0	47,784	23.9
Grocery stores.....	32,238	19.6	39,169	20.5	42,444	21.2
Gasoline service.....	9,976	6.1	13,737	7.2	15,072	7.5
General-merchandise group.....	18,694	11.4	20,762	10.8	21,156	10.6
Department stores, excluding mail order.....	10,277	6.3	11,227	5.9	12,000 ²	6.0
Mail order (catalog sales).....	1,339	.8	1,407	0.7	1,476	0.7
Variety stores.....	2,996	1.8	3,422	1.8	3,528	1.8
Other general merchandise stores.....	4,082	2.5	4,706	2.5	4,152	2.1
Liquor stores.....	3,165	1.9	3,941	2.1	4,212	2.1
All retail sales.....	164,085	100.0	191,470	100.0	200,016	100.0

¹ Sales of other durable-goods stores, other food stores and other non-durable goods stores not reported separately but included in totals. ² Estimate.

Wholesale Price Indexes by Major Commodity Groups

(1947-49 = 100)

Source: U. S. Bureau of Labor Statistics.

Commodity	1948	1949	1951	1955	1957	1958*
All commodities.....	104.4	99.2	114.8	110.7	117.6	119.7
Farm products.....	107.3	92.8	113.4	89.6	90.9	100.5
Processed foods.....	106.1	95.7	111.4	101.7	105.6	110.7
Textile products & apparel.....	104.4	95.5	110.6	95.3	95.4	93.9
Hides, skins & leather products.....	102.1	96.9	120.3	93.8	99.4	99.7
Fuel, power & lighting materials.....	107.1	101.9	106.7	107.9	117.2	112.5
Chemicals & allied products.....	103.8	94.8	110.0	106.6	109.5	110.6
Rubber & products.....	102.1	98.9	148.0	143.8	145.2	144.6
Lumber & wood products.....	102.7	99.2	123.9	123.6	119.0	115.3
Pulp, paper & allied products.....	102.9	98.5	119.6	119.3	129.6	130.5
Metals & metal products.....	103.9	104.8	122.8	136.6	151.2	149.7
Machinery & motive products.....	100.9	106.6	119.0	128.4	146.1	149.3
Furniture & other household durables.....	101.4	103.1	114.1	115.9	122.2	123.5
Nonmetallic minerals—structural.....	101.7	104.4	113.6	124.2	134.6	136.0
Tobacco mfs. & bottled beverages.....	100.4	101.6	108.1	121.6	126.1	128.1
Miscellaneous.....	103.1	96.1	104.9	92.0	89.6	94.2

* As of March.

Sales of Leading Retail Outlets

Source: Moody's Manual of Industrials.

	1957 Sales (in thousands)		1957 Sales (in thousands)
DEPARTMENT STORES		DRUG STORES	
J. C. Penney Co.	\$1,312,278	Walgreen Co.	\$ 235,111
Federated Department Stores	635,592	Sterling Drug Co.	198,703
Allied Stores Corp.	632,814	Rexall Drug	167,567
May Department Stores Co.	533,657	People's Drug Store, Inc.	67,091
Macy's	447,639		
Gimbel Bros., Inc.	369,406		
Marshall Field & Co.	219,012		
VARIETY STORES		SHOE STORES	
F. W. Woolworth Co.	823,895	International Shoe Co.	266,073
W. T. Grant Co.	406,337	Brown Shoe	236,946
S. S. Kresge Co.	377,169	Endicott Johnson Corp.	146,016
J. J. Newberry Co.	212,943	Melville Shoe Co.	130,356
G. C. Murphy Co.	208,227	Edison Bros. Stores, Inc.	99,302
S. H. Kress & Co.	158,571	A. S. Beck Shoe Corp.	77,779
McCrory Stores Corp.	111,751		
GROCERY STORES		MAIL-ORDER HOUSES	
Great Atlantic & Pacific Tea Co.	4,769,249	Sears, Roebuck & Co. ..	3,600,882
Safeway Stores, Inc.	2,117,314	Montgomery Ward & Co.	1,073,799
Kroger Co.	1,674,124	Spiegel, Inc.	128,265
American Stores Co.	837,340		
National Tea (Chicago)	681,132		
		FURNITURE STORES	
		Barker Bros. Corp.	53,443
		Reliable Stores Corp.	27,811
		Sterchi Bros. Stores, Inc.	17,958

Largest U. S. and Foreign Corporations

(millions of dollars)

Source: Fortune Magazine.

Ten Largest Industrial Corporations			Five Largest Foreign Industrial Corporations		
	Sales	Assets ¹		Sales	Assets ¹
General Motors	\$10,990	\$7,498	Royal Dutch-Shell (Britain-Holland) ...	\$7,377	\$6,512
Standard Oil (N. J.) ..	7,830	8,712	Unilever (Britain- Holland)	3,415	1,909
Ford Motor	5,771	3,348	British Petroleum	2,220	1,356
U. S. Steel	4,414	4,373	Imperial Tobacco (Britain)	1,850	764
General Electric	4,336	2,361	British-American Tobacco	1,650	962
Chrysler	3,565	1,497			
Socony Mobil Oil	2,976	3,105	Five Largest Transportation Companies		
Gulf Oil	2,730	3,241		Operating Revenues (1957)	Assets ¹
Bethlehem Steel ..	2,604	2,260	Pennsylvania Railroad ...	\$988	\$2,991
Swift	2,542	545	New York Central Railroad	839	2,626
			Southern Pacific Transp. System	663	2,177
			Atchison, Topeka & Santa Fe R'y	611	1,548
			Union Pacific R. R.	517	1,497
Five Largest Commercial Banks			Five Largest Utilities		
		Assets ¹			Assets ¹
Bank of America	\$10,639		American Tel & Tel		\$17,678
Chase Manhattan Bank	7,810		Pacific Gas & Electric		2,146
First National City Bank	7,803		Consolidated Edison of N. Y.		1,829
Manufacturers Trust	3,348		Commonwealth Edison (Chicago)		1,460
Chemical Corn Exchange Bank ...	3,310		El Paso Natural Gas (El Paso, Tex.)		1,324
Five Largest Life Insurance Companies					
		Assets ¹			
Metropolitan	\$15,536				
Prudential	13,919				
Equitable Life Assurance	8,876				
New York Life	6,425				
John Hancock Mutual	5,163				

¹ As of Dec. 31, 1957.

Number of Service Establishments and Places of Amusement, 1948 and 1954

Source: U. S. Department of Commerce.

Kind of business	1948	1954	Kind of business	1948	1954
PERSONAL SERVICES:			Bicycle repair shops.....	1,283	561
Barber shops.....	91,993	91,122	Blacksmith shops.....	8,249	5,824
Barber and beauty shops.....	2,591	2,018	Electrical repair shops.....	19,440	32,195
Baths and masseurs.....	1,305	2,265	Jewelry, watch, clock repair.....	12,750	11,246
Beauty parlors.....	74,497	76,544	Leather goods repair.....	560	393
Cleaning and dyeing plants.....	25,534	29,200	Locksmiths and gunsmiths.....	1,518	1,801
Costume and dress suit rental.....	510	515	Musical instrument repair.....	789	2,972
Diaper service.....	384	381	Radio repair.....	12,558	22,824†
Funeral service, crematories.....	18,675	18,387	Refrigerator repair.....	2,531	5,037
Fur repair and storage.....	2,334	1,439	Saw, knife and tool sharpening and repair.....	1,304	2,746
Hat cleaning.....	1,426	947	Typewriter repair.....	638	775
Laundries, all types.....	19,182	30,269	Upholstery, furniture.....	10,297	13,305
Linen supply service.....	1,176	1,371	Welding shops.....	3,536	9,244
Photographic studios.....	14,712	17,293	OTHER SERVICES:		
Rug cleaning and repairing.....	1,517	1,777	Hotels.....	29,650	24,778
Shoe repair shops.....	44,151	26,843	Tourist courts and camps.....	25,919	42,184
Shoe shine parlors.....	2,962	1,595	AMUSEMENT PLACES:		
BUSINESS SERVICES:			Amusement parks, devices and shooting galleries.....	2,153	2,488
Advertising agencies.....	3,279	5,063	Bands, orchestras, entertainers.....	2,026	7,097
Auctioneers.....	670	1,639	Bathing beaches (not municipal).....	261	360
Blueprinting and photostat.....	672	1,019	Billiard and pool parlors.....	9,661	7,639
Coin-operated machine.....	1,302	482	Boat and canoe rental.....	1,587	1,811
Consumer credit reporting.....	2,652	5,220	Bowling alleys.....	4,505	5,062
Detective agencies.....	603	1,123	Clubs, baseball.....	357	271
Disinfecting, exterminating.....	1,393	3,270	Clubs, football.....	21	25
Employment agencies.....	2,231	3,153	Dance halls, studios, schools.....	1,074	2,265
Interior decorating.....	601	2,944	Race tracks, automobile.....	112	454
News syndicates.....	77	467	Race tracks, dog.....	15	145
Outdoor advertising.....	798	1,307	Race tracks, horse.....	71	1,246
Photo finishing laboratories.....	1,703	1,719	Riding academies.....	709	689
Sign painting shops.....	4,283	5,703	Skating rinks.....	1,424	1,799
Telephone answering service.....	367	1,171	Sports promoters, commercial operators.....	6,518	7,799
Window cleaning service.....	1,260	4,231	Swimming pools (not municipal).....	499	652
Window display services.....	279	1,101	Theaters, motion pictures.....	17,689	18,491
REPAIR SERVICES:			Theaters and theatrical producers.....	1,426	2,179
Automotive repair services and garages.....	95,544	94,342			
Automobile rentals.....	1,011	2,872*			
Automobile storage, parking.....	8,533	8,572			

* Includes truck rental. † Includes TV repair.

Advertising Expenditures by Medium

Source: Printers' Ink.

Medium	1948		1949		1950		1953		1957	
	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total	Amount (million dollars)	% of total
Newspapers.....	1,749.6	36.0	1,905.0	36.6	2,063.2	36.3	2,655.1	34.0	3,325	32.7
Radio.....	617.1	12.7	633.8	12.2	667.1	11.7	707.9	9.1	648	5.7
Magazines.....	512.7	10.5	492.5	9.5	514.9	9.0	663.1	8.5	830	8.0
Direct mail.....	689.1	14.2	755.6	14.5	803.2	14.1	1,075.5	13.8	1,500	14.3
Business papers.....	250.9	5.2	248.1	4.8	251.1	4.4	398.8	5.1	530	5.0
Outdoor.....	132.1	2.7	131.0	2.5	142.5	2.5	174.7	2.2	204	2.0
Farm papers.....	20.4	.4	20.5	.4	21.2	.4	30.8	0.4	34*	0.4
Television.....	...	...	63.0	1.2	185.0	3.3	688.7	8.8	1,315	12.3
Miscellaneous.....	891.7	18.3	952.7	18.3	1,043.1	18.3	1,408.2	18.1	2,046	19.6
Total.....	4,863.6	100.0	5,202.2	100.0	5,691.3	100.0	7,803.2	100.0	10,432	100.0

* Regional farm papers.

Financial Condition of U. S. Life Insurance Companies

(in millions of dollars)

Source: *Spectator Yearbook and Institute of Life Insurance.*

Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders*
1910.....	3,876	781	593	387
1920.....	7,320	1,764	1,381	745
1929.....	17,482	4,337	3,343	1,962
1932.....	20,754	4,653	3,495	3,087
1939.....	29,243	5,453	3,776	2,642
1945.....	44,797	7,674	5,159	2,667
1948.....	55,512	9,751	7,157	3,237
1950.....	64,020	11,337	8,189	3,731
1954.....	84,486	15,280	11,563	4,947
1955.....	90,432	16,544	12,546	5,383
1956.....	96,011	17,865	13,584	5,878
1957.....	101,309	19,333	14,775	6,661

* Beginning 1943, data include payments to U. S. residents by domestic and foreign companies.

Life Insurance in Force in U. S.

(in millions of dollars)

Source: *Spectator Yearbook and Institute of Life Insurance.*

	Dec. 31	Ordinary	Group	Industrial	Total*
1910.....	11,783	.....	.....	3,125	14,908
1915.....	16,650	100	.....	4,279	21,029
1925.....	52,892	4,247	.....	12,318	69,475
1929.....	75,686	8,994	.....	17,349	102,086
1930.....	78,576	9,801	.....	17,963	106,413
1933.....	70,872	8,681	.....	16,630	96,246
1935.....	70,684	10,208	.....	17,471	98,464
1940.....	79,346	14,938	.....	20,866	115,530
1945.....	101,550	22,172	.....	27,675	151,762
1948.....	131,158	37,068	.....	31,253	201,208
1950.....	149,071	47,793	.....	33,415	234,168
1951.....	159,054	54,398	.....	34,870	253,140
1954.....	198,419	86,395	.....	38,664	333,719
1955.....	216,600	101,300	.....	39,682	372,332
1956.....	240,521	132,000	.....	40,109	412,630
1957.....	264,678	133,794	.....	40,139	458,359

* Includes credit insurance.

Domestic Passenger Traffic by Major Carriers

(in millions of passenger-miles)

Source: Interstate Commerce Commission; Corps of Engineers, U. S. A.; Civil Aeronautics Board; Assn. of American Railroads.

Year	Steam railroads		Busses		Air carriers		Electric Interurban railways		Inland waterways ¹	
	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total	Passenger- miles	% of total
1939.....	22,713	65.0	9,100	26.0	683	2.0	956	2.7	1,486	4.3
1941.....	29,406	62.7	13,100	27.9	1,385	3.0	1,177	2.5	1,821	3.9
1944.....	95,663	74.2	26,920	20.8	2,178	1.7	2,042	1.6	2,187	1.7
1947.....	45,972	58.5	23,948	30.4	6,110	7.8	771	1.0	1,845	2.3
1949.....	35,133	52.8	22,411	33.7	6,753	10.1	842	1.3	1,402	2.1
1952.....	34,040	49.3	20,500	29.7	12,528	18.1	650	0.9	1,400	2.0
1953.....	31,679	46.4	19,730	28.9	14,760	21.6	582	0.9	1,487	2.2
1954 ²	29,310	38.4	25,614	33.6	19,568	25.6	157	0.2	1,701	2.2
1956.....	28,216	34.8	25,189	31.0	25,573	31.5	325	0.4	1,860	2.3
1957 ³	25,900	31.4	25,300	30.7	28,900	35.1	300	0.4	2,000	2.4

¹ Rivers, canals and Great Lakes. ² Preliminary. ³ Estimated.

Domestic Freight Traffic by Major Carriers

(in millions of ton-miles)

Source: Interstate Commerce Commission; Corps of Engineers, U. S. A.; Civil Aeronautics Board; Assn. of American Railroads.

Year	Steam railways ¹		Inland waterways ²		Motor trucks		Oil pipelines		Air carriers ¹	
	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total	Ton- miles	% of total
1939.....	338,125	64.22	88,897	16.88	43,931	8.34	55,602	10.56	12	(*)
1941.....	480,730	64.68	130,916	17.61	63,258	8.51	68,428	9.20	19	(*)
1944.....	745,573	70.14	137,005	12.89	47,395	4.46	132,864	12.50	71	(*)
1947.....	663,442	67.51	135,964	13.84	77,918	7.93	105,161	10.70	158	(*)
1949.....	533,862	61.17	130,192	14.91	93,653	10.73	114,916	13.16	235	(*)
1951.....	654,340	59.05	168,143	15.17	133,160	12.02	152,115	13.73	378	(*)
1952.....	622,300	57.76	154,900	14.37	140,000	12.99	160,000	14.84	420	(*)
1953.....	613,171	52.55	180,622	15.49	206,808	17.72	165,728	14.30	427	(*)
1956.....	655,891	48.25	219,973	16.2	253,751	18.7	229,959	16.9	563	(*)
1957 ³	626,400	46.4	227,100	16.8	260,000	19.3	236,700	17.5	700	(*)

¹ Includes express and mail. ² Rivers, canals and domestic traffic on Great Lakes. ³ Estimated. ⁴ Negligible.

Farm Income—Estimated Receipts from Major Farm Marketings (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Cotton and cotton-seed	Tobacco	Food grains	Oil-bearing crops	Feed grains and hay	Vegetables	Fruits and nuts	Meat animals	Dairy products	Poultry & eggs
1919.....	2,282	500	1,749	96	1,173	631	597	4,045	1,522	1,106
1929.....	1,511	279	788	85	697	751	582	3,017	1,838	1,187
1932.....	461	115	220	29	247	359	299	1,159	986	562
1939.....	627	271	464	110	485	545	411	2,271	1,346	775
1944.....	1,548	688	1,369	581	1,203	1,510	1,446	5,706	2,938	2,473
1947.....	2,245	1,033	2,768	908	2,328	1,710	1,160	9,340	4,046	2,926
1949.....	2,632	904	2,339	846	2,299	1,641	1,013	8,383	3,778	3,088
1951.....	2,849	1,187	1,896	1,058	1,966	1,670	1,214	11,308	4,290	3,667
1955.....	2,703	1,161	2,312	912	2,323	1,624	1,272	8,868	4,114	3,013
1956.....	2,517	1,163	2,039	1,224	2,561	1,852	1,388	8,246	4,478	3,219
1957.....	1,852	974	1,955	1,155	2,572	1,689	1,319	9,172	4,622	3,010

Farm Income (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Est. cash income		Government payments	Total cash income
	Crops	Livestock and livestock products		
1919.....	7,645	6,925	...	14,570
1929.....	5,120	6,179	...	11,299
1931.....	2,532	3,837	...	6,369
1935.....	2,957	4,117	573	7,647
1941.....	4,605	6,470	544	11,619
1945.....	9,419	12,001	742	22,162
1946.....	10,835	13,719	772	25,326
1947.....	13,231	16,523	314	30,068
1949.....	12,586	15,426	185	28,197
1950.....	12,575	16,198	283	29,056
1951.....	13,053	19,569	286	32,908
1952.....	14,627	18,498	292	33,417
1953.....	13,797	17,178	213	31,188
1956.....	13,792	16,207	554	30,553
1957.....	12,888	17,136	1,008	31,032

Farms—Population and Property

Source: U. S. Bureau of the Census.

Item	1930	1940	1950
Farm population (thousands)...	29,447	29,047	24,335
Number of farms (thousands)...	6,289	6,097	5,382
Tenancy as % of total.....	42.2	38.7	26.8
All land in farms (million acres)	986	1,061	1,159
Average acreage per farm.....	156.9	174.0	215.3
Value of farm property (millions of dollars)*.....	56,973	41,227	101,738

* Includes land, buildings, livestock, implements and machinery.

U. S. Farm Index (1910-14 = 100)

Source: U. S. Department of Agriculture.

Year	Prices paid by farmers*	Prices rec'd by farmers†	Parity ratio
1935-39 average ..	125	107	86
1945.....	189	206	109
1948.....	259	285	110
1950.....	255	256	100
1952.....	286	288	101
1955.....	281	236	84
1957.....	296	242	82
1958†.....	304	263	87

* Commodities, interest and taxes and wage rates.
† All crops and livestock. ‡ March.

Farm to Retail Price Spreads for Farm Food Products*

Source: U. S. Department of Agriculture.

Year	Retail cost (dollars)	Net farm value (dollars)	Farmer's share of consumer's dollars (%)
Average:			
1913-19.....	361	170	47
1920-24.....	444	181	41
1925-29.....	439	183	42
1933.....	277	90	32
1937.....	363	151	42
1939.....	318	122	38
1945.....	459	246	54
1949.....	939	435	46
1950.....	924	432	47
1953.....	1,002	452	45
1955.....	975	396	41
1956.....	976	390	40
1957.....	1,007	400	40
1958†.....	1,049	429	41

* Retail cost of 1935-39 average annual purchases of farm food products by a family of three average consumers; farm value of equivalent quantities sold by producers adjusted for value of by-products. † February.

Agricultural Output by States, 1957 Crops

Source: U. S. Department of Agriculture.

State	Wheat (1,000 bu.)	Corn (1,000 bu.)	Cotton lint ¹	Potatoes (1,000 cwt.)	Tobacco (1,000 lbs.)	Cattle ² (1,000 head)	Hogs ² (1,000 head)
Alabama.....	2,340	57,772	536	2,595	376	1,816	930
Alaska.....							
Arizona.....	2,142	1,500	758	1,722		943	34
Arkansas.....	3,260	13,932	982	473		1,507	394
California.....	6,226	16,835	1,545	30,918		3,733	442
Colorado.....	33,854	25,029		10,860		1,910	177
Connecticut.....		1,880		1,235	13,372	160	22
Delaware.....	638	4,320		1,665		65	34
Florida.....		13,368	7	7,610	21,007	1,934	395
Georgia.....	1,848	71,188	394	254	83,026	1,546	1,695
Idaho.....	42,350	4,080		35,624		1,388	100
Illinois.....	37,149	529,664	1	156		4,021	6,470
Indiana.....	32,360	262,550		1,708	11,900	2,217	4,474
Iowa.....	3,744	615,164		480		6,410	10,781
Kansas.....	100,111	44,283		170		4,032	840
Kentucky.....	4,076	64,739	4	936	361,463	1,807	1,189
Louisiana.....	1,314	13,524	349	430	156	1,883	386
Maine.....		440		38,640		200	19
Maryland.....	3,397	15,176		426	31,450	514	199
Massachusetts.....		1,500		1,067	5,465	161	144
Michigan.....	28,739	91,278		6,660		1,811	650
Minnesota.....	15,780	327,192		8,137		3,938	3,233
Mississippi.....	3,726	37,575	1,080	450		2,487	764
Missouri.....	37,789	151,052	179	520	3,920	3,866	3,592
Montana.....	83,815	3,843		1,245		2,294	112
Nebraska.....	78,821	222,300		2,315		4,675	2,044
Nevada.....	640	216		396		567	18
New Hampshire.....		460		330		103	12
New Jersey.....	1,475	4,756		3,238		220	192
New Mexico.....	1,962	1,482	223	432		1,056	35
New York.....	8,085	35,139		16,735		2,175	126
North Carolina.....	6,650	60,125	232	3,428	676,095	984	1,406
North Dakota.....	118,144	34,528		9,576		1,870	347
Ohio.....	32,890	180,522		2,835	20,335	2,344	2,586
Oklahoma.....	43,025	4,914	261	220		2,988	347
Oregon.....	26,788	2,520		8,738		1,412	131
Pennsylvania.....	14,248	53,449		6,772	41,160	1,858	513
Rhode Island.....		252		854		23	11
South Carolina.....	3,510	23,816	344	760	127,530	626	534
South Dakota.....	40,037	129,855		720		3,294	1,243
Tennessee.....	3,485	45,229	413	806	125,745	1,736	1,183
Texas.....	33,669	40,020	3,648	1,630		7,736	908
Utah.....	6,559	2,688		1,628		706	75
Vermont.....		2,950		368		441	11
Virginia.....	4,731	21,120	8	3,215	133,720	1,382	691
Washington.....	69,333	3,564		9,938		1,133	111
West Virginia.....	609	6,216		792	3,335	546	106
Wisconsin.....	1,377	157,072		6,660	20,053	4,298	1,819
Wyoming.....	6,376	1,755		781		1,151	34
Total.....	947,102	3,402,832	10,964	236,268	1,680,108	93,967	51,559

¹ Thousands of 500 lb. bales. ² Number on farms as of Jan. 1, 1958.

Domestic Animals on Farms, Number and Value

Source: U. S. Department of Agriculture.

January 1:	Number (thousands)							Value of domestic animals (millions of dollars)
	Horses & Mules	Cattle	Dairy cows	Sheep	Swine	Chickens	Turkeys	
1945.....	11,950	85,573	27,770	46,520	59,373	516,497	7,082	11,707
1947.....	10,129	80,554	25,842	37,489	56,810	467,217	5,879	15,546
1951.....	7,036	82,083	23,722	30,635	62,852	442,657	5,091	22,165
1953.....	5,403	94,241	24,094	31,861	54,294	429,731	5,305	19,477
1957.....	3,574	94,502	22,916	30,840	51,703	390,137	5,799	11,132
1958.....	3,348	93,967	22,357	31,328	51,559	370,475	5,477	14,163

Regional Economic Differences

Source: U. S. Depts. of Commerce and Labor and *Sales Management*, American Telephone and Telegraph Co. and Edison Electric Institute.

State	1950 % of employed in Agri- Manufac- culture turing		Income received per capita, 1957	% increase per capita income received 1929-57	Est. retail sales* (\$ millions, 1957)	% distribution of electric customers, Jan. 1, 1958	% households with telephone service, Jan. 1, 1958
New England.....	....	....	....	....	....	6.34	89
Maine.....	9.3	34.2	\$1,663	177	1,043	0.68	70
New Hampshire.....	6.5	40.4	1,866	170	667	0.41	77
Vermont.....	18.2	24.6	1,665	166	433	0.24	76
Massachusetts.....	1.8	37.4	2,335	146	6,224	3.08	92
Rhode Island.....	1.5	44.0	1,990	128	936	0.52	79
Connecticut.....	2.9	42.6	2,821	174	3,310	1.47	99
Middle Atlantic.....	....	....	....	....	....	19.45	89
New York.....	2.9	29.8	2,578	122	20,658	9.59	90
New Jersey.....	2.5	37.7	2,504	169	7,104	3.53	91
Pennsylvania.....	4.1	35.5	2,112	173	12,462	6.33	86
East North Central.....	....	....	....	....	....	20.82	83
Ohio.....	6.9	36.6	2,255	189	11,800	5.52	84
Indiana.....	11.6	34.8	2,010	228	5,172	2.77	79
Illinois.....	7.1	32.0	2,447	186	12,575	5.64	84
Michigan.....	6.7	40.9	2,141	170	9,488	4.55	83
Wisconsin.....	18.6	30.6	1,920	182	4,558	2.34	81
West North Central.....	....	....	....	....	....	9.07	81
Minnesota.....	22.1	16.3	1,850	209	3,943	1.95	86
Iowa.....	28.5	15.2	1,806	213	3,247	1.66	88
Missouri.....	17.5	21.8	1,940	209	5,032	2.57	76
North Dakota.....	44.2	2.9	1,435	283	754	0.34	66
South Dakota.....	40.5	4.9	1,531	267	753	0.38	68
Nebraska.....	29.6	9.2	1,818	208	1,733	0.85	81
Kansas.....	23.0	12.6	1,787	234	2,355	1.33	81
South Atlantic.....	....	....	....	....	....	13.59	64
Delaware.....	8.8	32.4	2,740	169	547	0.23	83
Maryland.....	6.1	24.9	2,156	177	3,380	1.57	78
D. C.....	0.2	7.3	2,514	97	1,354	0.34	86
Virginia.....	14.6	20.5	1,660	282	3,680	1.97	66
West Virginia.....	9.8	18.9	1,554	236	1,737	1.04	59
North Carolina.....	24.6	27.9	1,317	294	3,943	2.40	52
South Carolina.....	26.1	27.9	1,180	337	1,786	1.18	49
Georgia.....	21.2	23.0	1,431	309	3,568	2.08	59
Florida.....	12.2	10.7	1,836	252	5,892	2.78	71
East South Central.....	....	....	....	....	....	6.37	55
Kentucky.....	25.7	15.8	1,372	251	2,488	1.62	54
Tennessee.....	21.8	21.1	1,383	267	3,148	1.98	64
Alabama.....	24.3	21.8	1,324	309	2,540	1.72	54
Mississippi.....	42.1	12.6	958	236	1,493	1.05	40
West South Central.....	....	....	....	....	....	9.28	66
Arkansas.....	35.0	13.8	1,151	277	1,455	1.02	46
Louisiana.....	17.3	15.1	1,566	277	2,960	1.66	68
Oklahoma.....	20.5	9.8	1,619	257	2,388	1.40	72
Texas.....	16.0	13.5	1,791	275	10,554	5.19	67
Mountain.....	....	....	....	....	....	3.53	68
Montana.....	24.8	8.5	1,896	219	850	0.39	73
Idaho.....	26.8	9.2	1,630	224	775	0.39	72
Wyoming.....	20.5	6.0	2,038	201	433	0.19	71
Colorado.....	15.1	12.2	1,996	213	2,127	0.98	79
New Mexico.....	18.4	5.9	1,686	314	923	0.42	57
Arizona.....	14.7	8.8	1,750	196	1,323	0.57	56
Utah.....	12.4	12.2	1,694	203	945	0.45	79
Nevada.....	10.5	5.1	2,423	176	438	0.14	56
Pacific.....	....	....	....	....	....	11.62	83
Washington.....	9.3	21.2	2,128	184	3,229	1.69	80
Oregon.....	12.1	22.7	1,914	180	2,164	1.06	73
California.....	7.3	19.6	2,523	154	19,826	8.87	85
Total.....	12.2	25.9	2,027	188	200,395	100.00	78

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Receipts and Expenditures of the National Government (in millions of dollars) Source: U. S. Treasury Department.

Yearly average or year ended June 30	Receipts				Expenditures							
	Customs (including tonnage tax) ¹⁾	Internal revenue		Other receipts	Total receipts	Net receipts ²	Department of the Army ³	Department of the Navy	Interest on public debt	All other	Total expendi- tures ⁴	Surplus (+) or deficit (-)
		Income and profits tax	Other									
1789-1800.....	6	.....	.....	.....	7	7	2	.....	3	1	6	.....
1801-1810.....	12	.....	.....	.....	13	13	2	.....	4	2	9	+4
1811-1820.....	16	.....	2	.....	21	21	11	5	5	3	24	-3
1821-1830.....	20	.....	.....	.....	22	22	4	4	4	5	16	+6
1831-1840.....	20	.....	.....	10	30	30	8	5	.....	11	24	+6
1841-1850.....	24	.....	.....	3	27	27	13	7	.....	11	32	.....
1851-1860.....	54	.....	.....	6	60	60	16	12	3	29	60	.....
1861-1865.....	69	17	55	20	161	161	548	65	35	36	684	-523
1866-1870.....	179	51	171	46	447	447	128	28	135	86	377	+70
1871-1875.....	186	8	113	30	337	337	40	23	112	287	287	+50
1876-1880.....	146	.....	117	25	288	288	37	16	100	102	255	+33
1881-1885.....	202	.....	132	33	367	367	43	16	64	135	258	+109
1886-1890.....	216	.....	127	32	375	375	50	18	44	177	279	+96
1891-1895.....	177	.....	150	26	353	353	50	29	38	255	364	-11
1896-1900.....	185	.....	207	43	435	435	111	48	30	260	457	-22
1901-1905.....	260	.....	255	44	559	559	133	86	28	288	535	+24
1906-1910.....	311	4	257	56	628	628	169	113	23	334	639	-11
1915.....	210	80	336	72	698	698	202	142	23	394	761	-63
1918.....	180	2,314	872	299	3,665	3,665	4,870	1,279	190	6,358	12,697	-9,032
1919.....	602	2,331	607	493	4,033	4,033	426	365	678	1,830	3,299	+734
1929.....	251	746	858	225	2,080	2,021	435	349	689	3,150	4,623	-2,602
1933.....	486	2,163	2,434	211	5,294	4,979	628	557	866	5,705	7,756	-2,777
1937.....	319	2,189	2,972	188	5,668	5,104	695	673	941	6,657	8,966	-3,862
1943.....	324	16,094	6,050	934	23,402	22,202	42,526	20,888	1,808	14,400	79,622	-57,420
1945.....	355	35,173	8,729	3,493	47,750	44,762	50,490	30,047	3,617	14,549	98,703	-53,941
1946.....	435	30,885	9,426	3,492	44,238	40,027	27,987	15,161	4,722	12,833	60,703	-20,764
1947.....	494	29,305	10,074	4,635	44,508	40,043	9,172	5,597	4,958	19,562	39,289	+754
1949.....	384	29,482	10,825	2,082	42,773	38,246	7,862	4,435	5,339	20,730	40,057	-1,811
1950.....	423	28,263	11,186	1,439	41,311	37,045	5,789	4,130	5,750	20,977	40,167	-3,122
1951.....	624	37,753	13,354	1,639	53,369	48,143	8,636	5,863	5,613	18,163	44,633	+3,510
1952.....	551	51,347	14,288	1,814	67,999	62,129	17,453	10,231	5,859	19,750	66,145	-4,017
1953.....	613	54,073	15,808	1,864	72,649	64,825	17,054	11,875	6,503	23,756	74,274	-9,449
1954.....	562	53,906	16,394	2,311	73,173	64,655	13,515	11,293	6,382	23,986	67,772	-3,117
1955.....	705	56,632	18,476	3,006	78,820	68,165	9,274	9,744	6,787	23,986	66,540	+1,626
1956.....	754	60,560	19,612	2,749	83,675	71,029	9,705	10,397	7,244	23,726	69,433	+1,596
1957.....												

¹ Beginning 1932, tonnage tax incl. in "Other receipts." ² Net receipts equal total receipts less (a) appropriations to federal old-age and survivors' insurance trust fund beginning fiscal year 1937 and (b) refunds of receipts beginning fiscal year 1931. ³ Figures for 1931 are for the fiscal year 1930-1931. ⁴ Figures for 1931 are for the fiscal year 1930-1931. ⁵ Figures for 1931 are for the fiscal year 1930-1931. ⁶ Figures for 1931 are for the fiscal year 1930-1931. ⁷ Figures for 1931 are for the fiscal year 1930-1931. ⁸ Figures for 1931 are for the fiscal year 1930-1931. ⁹ Figures for 1931 are for the fiscal year 1930-1931. ¹⁰ Figures for 1931 are for the fiscal year 1930-1931. ¹¹ Figures for 1931 are for the fiscal year 1930-1931. ¹² Figures for 1931 are for the fiscal year 1930-1931. ¹³ Figures for 1931 are for the fiscal year 1930-1931. ¹⁴ Figures for 1931 are for the fiscal year 1930-1931. ¹⁵ Figures for 1931 are for the fiscal year 1930-1931. ¹⁶ Figures for 1931 are for the 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Money and Interest Rates

(Per cent per annum)

Source: Federal Reserve Board.

Year	Open market rate in New York City			Commercial loan rates		
	Prime commercial paper, 4 to 6 months*	Prime bankers' acceptances, 90 days*	Call loans, renewal rate†	New York City	7 other northern & eastern cities	11 southern & western cities
1929.....	5.85	5.03	7.61	5.76	5.82	5.93
1932.....	2.73	1.28	2.05	4.20	4.81	5.21
1933.....	1.73	.63	1.16	3.43	4.46	5.04
1935.....	.76	.13	.56	1.76	3.39	3.76
1938.....	.81	.44	1.00	1.69	2.75	3.26
1941.....	.54	.44	1.00	1.97	2.55	3.19
1945.....	.75	.44	1.00	1.99	2.51	2.73
1947.....	1.03	.87	1.38	1.81	2.33	2.76
1949.....	1.48	1.12	1.63	2.37	2.71	3.10
1951.....	2.17	1.60	2.17	2.83	3.09	3.52
1953.....	2.52	1.88	3.06	3.47	3.68	4.04
1956.....	3.31	2.64	4.20	4.00	4.25	4.38
1957.....	3.81	3.45	4.38	4.47	4.63	4.83
1958†.....	1.75	1.38	3.38§	4.29	4.49	4.77

* Prevailing rate. † New York Stock Exchange; average of daily quotations. ‡ Week ending May 3. § Week ending June 14.

U. S. Money in Circulation by Denomination¹

(in millions of dollars)

Source: U. S. Treasury Department.

Denomination	1939	1940	1943	1945	1950	1951	1952	1953	1956	1957
Coin.....	590	648	1,019	1,274	1,554	1,654	1,750	1,812	2,027	1,789
\$1 ²	559	610	909	1,039	1,113	1,182	1,228	1,249	1,369	1,302
\$2.....	36	39	70	73	64	67	71	72	78	77
\$5.....	1,019	1,129	1,973	2,313	2,049	2,120	2,143	2,119	2,196	2,102
\$10.....	1,772	2,021	5,194	6,782	5,998	6,329	6,561	6,565	6,734	6,615
\$20.....	1,576	1,800	5,705	9,201	8,529	9,177	9,696	9,819	10,194	9,985
\$50.....	460	538	1,481	2,327	2,422	2,544	2,669	2,732	2,771	2,696
\$100.....	919	1,112	2,912	4,220	5,043	5,207	5,447	5,581	5,704	5,575
\$500.....	191	227	407	454	368	355	343	333	292	283
\$1,000.....	425	523	749	801	588	556	512	486	407	391
\$5,000.....	20	30	9	7	4	4	4	4	3	3
\$10,000.....	32	60	22	24	12	12	10	11	14	9
Total ¹	7,598	8,732	20,449	28,515	27,741	29,206	30,433	30,781	31,790	31,082

¹ End of year. ² Paper currency only: \$1 silver coins reported under coin. ³ Includes unassorted currency.

Public Debt of the United States

Source: U. S. Treasury Department.

June 30—	Gross debt		June 30—	Gross debt	
	Amount (in millions of dollars)	Per capita (dollars)		Amount (in millions of dollars)	Per capita (dollars)
1800*.....	\$ 83	\$ 15.87	1945.....	\$ 258,682	\$ 1,848.60
1860.....	65	2.06	1946.....	269,422	1,905.42
1865.....	2,678	75.01	1947.....	258,286	1,792.05
1900.....	1,263	16.60	1950.....	257,357	1,696.75
1915.....	1,191	11.85	1951.....	255,222	1,653.42
1920.....	24,299	228.23	1952.....	259,105	1,650.12
1929.....	16,931	139.04	1953.....	266,071	1,666.81
1932.....	19,487	156.10	1954.....	271,260	1,670.23
1935.....	28,701	225.55	1955.....	274,374	1,660.38
1937.....	36,425	282.75	1956.....	276,200	1,624.71
1939.....	40,440	308.98	1957.....	270,527	1,582.00
1943.....	136,696	999.83	1958 (March 31).....	272,624	1,584.02

* Figures for 1800 are as of Jan. 1.

U. S. Exports of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	1956	1957
Crude materials:	2,515	3,109
Coal.....	732	829
Cotton, unmanufactured.....	719	1,048
Tobacco, unmanufactured.....	334	359
Soybeans.....	180	218
Crude petroleum.....	90	173
Foodstuffs:	2,596	2,497
Grains and preparations.....	1,342	1,368
Wheat, including flour.....	798	845
Corn.....	182	251
Fruits and vegetables.....	370	360
Meats and edible animal fats.....	180	189
Dairy products and eggs.....	153	121
Manufactures, including semimanufactures:	13,829	15,024
Excluding type I and II special category items.....	11,640	13,044
Machinery.....	3,580	3,972
Electrical machinery and apparatus.....	753	810
Industrial machinery, total.....	2,152	2,480
Construction and mining machinery.....	796	882
Engines, turbines and parts.....	208	233
Metalworking and machine tools.....	238	310
Tractors, parts and accessories.....	390	380
Automobiles, parts and accessories.....	1,359	1,306
Motor trucks and busses, commercial, new.....	441	434
Passenger automobiles, commercial, new.....	334	298
Chemicals and related products.....	1,201	1,335
Medicinal and pharmaceutical preparations.....	246	285
Chemical specialties.....	453	494
Industrial chemicals.....	196	219
Iron and steel-mill products, including scrap.....	1,060	1,319
Textile manufactures.....	630	667
Cotton cloth, including duck ¹	140	148
Broad woven fabrics of synthetic fibers ¹	90	82
Metal manufactures.....	470	516
Nonferrous metals and ferroalloys.....	378	398
Rubber manufactures.....	276	300
Paper and manufactures.....	198	221
Including type II, but excluding type I special category items ²	13,255	14,569
Machinery.....	3,843	4,183
Electrical machinery and apparatus.....	1,017	1,021
Automobiles, parts and accessories.....	1,520	1,476
Chemicals and related products.....	1,213	1,354
Aircraft.....	1,065	1,029
Petroleum products.....	676	820
Motor fuel and gasoline and jet fuel.....	178	193
Lubricating oils.....	192	193
Rubber manufactures.....	278	302
Small arms and ammunition.....	190	248

¹ Excludes tire, pile, upholstery and drapery fabrics, and remnants. ² Special category includes commodities for which detailed export statistics are restricted, for security reasons.

U. S. Imports of Leading Commodities

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Commodity	1956	1957
Crude materials:	3,087	3,186
Crude petroleum.....	838	982
Nonferrous ores and concentrates ¹	470	512
Manganese ore.....	71	100
Copper ore and concentrates.....	60	66
Zinc-bearing ores.....	53	89
Lead ore and flue dust.....	52	61
Crude rubber.....	398	350
Iron ore.....	250	285
Wool, unmanufactured.....	242	211
Diamonds, rough, uncut, industrial.....	161	127
Tobacco, unmanufactured.....	90	97
Undressed furs.....	79	79
Other.....	559	543
Foodstuffs:	3,203	3,288
Coffee.....	1,439	1,376
Cane sugar.....	437	458
Fruits, edible nuts and vegetables.....	250	262
Fish, including shellfish.....	238	254
Whisky and distilled spirits.....	156	166
Cocoa or cacao beans.....	144	135
Meat products.....	145	184
Grains and preparations.....	81	85
Other.....	313	368
Semimanufactures:	3,005	2,921
Nonferrous metals ²	1,126	1,063
Copper.....	392	284
Tin.....	146	131
Aluminum.....	127	128
Nickel metal and oxide.....	184	202
Lead.....	89	94
Zinc.....	65	64
Gas oil and fuel oil.....	384	496
Sawmill products.....	306	243
Woodpulp.....	297	273
Diamonds, cut but not set.....	76	66
Iron and steel semimanufactures.....	74	57
Industrial chemicals.....	70	70
Fertilizer materials.....	60	70
Other.....	612	583
Finished manufactures:	3,221	3,527
Paper and manufactures.....	750	718
Newsprint.....	688	657
Textile manufactures.....	554	546
Burlaps.....	81	81
Cotton manufactures.....	154	136
Wool manufactures.....	145	143
Fabrics of wool and mohair.....	62	59
Machinery, total.....	355	424
Agricultural implements and tractors.....	75	80
Vehicles and parts.....	276	433
Automobiles, new ³	129	308
Aircraft.....	87	53
Steel-mill manufactures.....	165	176
Clocks, watches and parts.....	75	75
Iron and steel advanced manufactures.....	66	78
Other.....	980	1,077

¹ Includes ores of ferroalloying metals. ² Includes ferroalloys. ³ Trucks and busses excluded.

U. S. Exports and General Imports by Countries and Areas

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Area and country	Exports, including re-exports ¹			General imports		
	1949	1956	1957	1949	1956	1957
Total.....	11,936.0	19,090.2	20,809.7	6,592.0	12,615.0	12,978.1
Canada.....	1,925.5	4,148.7	4,033.1	1,550.8	2,893.6	2,904.3
20 American Republics.....	2,632.9	3,863.0	4,673.4	2,301.0	3,639.3	3,768.3
Western Europe.....	3,973.0	6,415.1	6,738.5	909.0	2,889.9	3,073.7
Other areas.....	3,404.6	4,663.4	5,364.7	1,831.2	3,192.2	3,231.8
NORTH AND SOUTH AMERICA	(Excluding special categories)¹					
Canada.....	1,925.5	4,015.8	3,904.9	1,550.8	2,893.6	2,904.3
20 American Republics.....	2,632.9	3,768.3	4,554.5	2,301.0	3,639.3	3,768.3
Mexico.....	454.4	850.7	901.5	243.5	400.9	430.1
Central American Republics.....	257.1	317.4	344.7	139.0	216.0	230.2
Costa Rica.....	26.2	42.9	48.2	22.4	19.1	27.5
El Salvador.....	24.8	50.1	50.0	40.2	48.5	55.6
Guatemala.....	43.7	82.6	81.2	43.3	78.9	74.3
Honduras.....	32.7	39.0	41.6	15.2	29.9	26.2
Nicaragua.....	14.8	33.5	39.1	6.7	19.5	22.3
Panama, Republic of.....	114.9	69.3	84.5	11.2	20.1	24.3
Cuba.....	374.9	519.1	617.9	387.5	457.1	481.7
Dominican Republic.....	36.9	69.7	74.3	24.4	60.1	63.1
Haiti.....	23.3	36.7	24.3	19.8	14.9	18.3
Argentina.....	123.5	211.6	281.8	97.5	132.8	129.3
Bolivia.....	34.6	49.0	33.9	48.5	41.8	16.4
Brazil.....	365.0	308.6	481.8	551.8	745.7	700.1
Chile.....	138.5	158.1	194.9	152.5	236.6	196.3
Colombia.....	167.9	323.2	241.4	241.5	409.6	383.3
Ecuador.....	31.0	45.8	50.7	17.1	53.4	58.0
Paraguay.....	7.5	7.8	11.2	5.7	5.8	6.6
Peru.....	81.9	162.6	197.6	40.2	134.6	137.2
Uruguay.....	33.4	33.7	48.7	54.0	25.3	17.9
Venezuela.....	503.0	674.2	1,049.7	278.1	704.8	899.8
Netherlands Antilles.....	75.2	80.3	84.2	111.4	243.2	273.6
EUROPE						
Western Europe.....	3,973.0	5,172.6	5,689.8	909.0	2,889.9	3,073.7
Austria.....	149.7	76.3	68.2	9.6	46.8	37.1
Belgium and Luxemburg.....	300.9	436.5	419.3	94.2	303.6	270.2
Denmark.....	91.1	84.3	87.7	6.6	58.2	73.7
France.....	465.6	561.8	588.7	61.5	235.9	258.0
Germany, Western ²	817.3	784.9	954.0	45.5	494.4	604.6
Greece.....	152.2	93.0	86.1	15.7	26.0	35.0
Iceland.....	7.4	11.9	10.2	2.2	8.8	6.7
Ireland.....	60.7	29.0	21.7	1.7	8.0	8.7
Italy.....	451.3	526.3	661.4	70.9	216.0	245.2
Trieste.....	11.8	9.0	13.4	...	0.1	0.5
Netherlands.....	268.1	566.8	555.7	59.3	165.3	165.2
Norway.....	87.9	95.2	85.4	30.7	72.1	63.3
Portugal.....	50.6	44.8	46.1	13.6	24.6	22.3
Sweden.....	81.0	184.4	230.3	54.4	109.0	118.7
Switzerland.....	137.7	221.4	238.6	93.1	179.3	173.0
Turkey.....	82.9	115.8	139.4	55.7	68.4	92.4
United Kingdom.....	662.0	910.1	1,099.7	227.6	726.5	765.4
Other Western Europe, total.....	94.8	421.0	383.8	66.6	146.8	133.6
Finland.....	26.0	49.5	34.0	27.4	48.1	40.0
Spain.....	49.2	262.9	199.9	24.3	67.9	58.2
Yugoslavia.....	19.6	108.5	149.9	14.9	30.8	35.4
Soviet Bloc.....	61.8	11.2	86.3	67.4	65.5	61.3
ASIA AND OCEANIA						
Western Asia.....	335.5	401.6	406.2	94.7	306.5	262.8
Iran.....	77.1	82.2	82.8	16.4	41.5	32.9
Iraq.....	12.2	39.5	40.1	5.7	40.1	29.1
Israel ³	76.8	97.9	96.5	6.0	19.0	20.1
Kuwait.....	22.3	31.5	38.8	38.8	93.6	112.2
Lebanon.....	39.7	37.1	40.2	2.1	4.7	4.5

Area and country	Exports, including re-exports ¹			General imports		
	1949	1956	1957	1949	1956	1957
Saudi Arabia.....	81.6	76.7	68.9	19.9	75.8	41.4
Far East.....	1,823.7	2,624.1	3,239.9	1,214.5	1,891.9	1,941.5
Southern, southeastern and eastern Asia.....	1,650.1	2,379.5	2,960.7	1,089.1	1,689.0	1,725.2
British Malaya.....	36.2	47.7	42.6	195.5	226.3	192.3
Ceylon.....	17.1	9.6	13.3	34.8	30.9	32.5
Hong Kong.....	113.6	68.4	78.0	4.3	19.9	34.0
India.....	240.4	274.2	437.6	238.8	205.6	211.1
Indonesia, Republic of.....	119.4	142.7	109.3	120.4	190.9	203.3
Japan.....	466.1	901.9	1,230.5	82.0	557.9	600.5
Korea, Republic of ⁴	49.9	192.9	276.9	1.4	9.7	3.9
Pakistan.....	41.0	139.9	111.4	27.7	36.9	39.6
Philippines, Republic of.....	424.9	331.8	369.1	204.7	257.0	261.4
Thailand (Siam).....	28.9	52.8	68.2	48.0	96.6	85.6
Taiwan.....	22.7	106.2	106.1	1.7	7.9	8.9
Vietnam, Laos and Cambodia.....	16.2	77.0	78.9	1.1	20.9	22.6
Australia.....	124.4	183.8	212.3	97.6	136.5	146.3
New Zealand.....	40.1	48.8	53.8	24.4	63.6	65.6
AFRICA						
Africa, total.....	590.8	676.5	681.0	337.5	597.5	585.9
Algeria.....	22.1	20.1	27.1	4.1	2.7	1.5
Angola.....	8.4	16.0	15.0	7.2	36.1	40.6
Belgian Congo.....	46.5	61.4	58.5	36.3	117.1	103.1
British East Africa, total ⁶	16.8	9.4	9.3	22.4	37.5	45.1
Egypt.....	50.0	98.8	40.1	9.4	14.6	17.0
Ethiopia.....	3.4	5.1	5.4	8.3	24.3	32.6
French Morocco.....	27.8	47.1	47.0	5.8	10.7	10.5
French West Africa, total ⁶	33.2	32.2	33.4	2.4	38.4	33.1
Liberia.....	51.5	30.9	59.6	10.8	43.3	38.4
Rhodesia, Nyasaland, Federation of.....	9.6	16.9	20.1	15.3	41.9	52.0
Union of South Africa.....	257.4	267.1	284.9	116.4	111.1	100.8
All sterling countries.....	1,760.1	2,255.4	2,692.1	1,156.0	1,947.8	2,005.5

¹ "Special category" exports not available by country of destination. ² Germany prior to 1952. ³ Israel included Palestine prior to 1954. ⁴ The Republic and North Korea prior to 1952. ⁵ British Somaliland, Seychelles, and Mauritius and dependencies, and other British East Africa. ⁶ Cameroun, French Equatorial Africa, and other French West Africa.

Balance of Payments of the U. S., 1949-1957 (in millions of dollars)

Source: Department of Commerce, Office of Business Economics.

Item	1949	1950	1951	1952	1954	1956	1957
Exports of goods and services, total.....	16,061	14,427	20,333	20,708	21,110	26,123	28,916
Military transfers under aid programs... 210		526	1,470	2,603	3,161	2,605	2,440
Other goods and services, total.....	15,851	13,901	18,863	18,105	17,949	23,518	26,476
Merchandise, adjusted (excl. military expenditures).....	12,149	10,117	14,123	13,319	12,799	17,321	19,327
Transportation.....	1,238	1,033	1,556	1,488	1,171	1,619	1,847
Travel.....	392	419	473	550	595	705	785
Income on investments.....	1,395	1,593	1,882	1,828	2,227	2,658	2,881
Other services.....	677	739	829	920	1,157	1,215	1,636
Imports of goods and services.....	9,702	12,098	15,142	15,760	16,088	19,810	20,707
Merchandise, adjusted (excl. military expenditures).....	6,879	9,108	11,202	10,838	10,354	12,791	13,291
Transportation.....	700	818	974	1,115	1,026	1,432	1,428
Travel.....	700	754	757	840	1,009	1,275	1,372
Military expenditures.....	621	576	1,270	1,957	2,603	2,910	3,120
Other services.....	802	842	939	1,010	1,096	1,402	1,496
Balance on goods and services.....	6,359	2,329	5,191	4,948	5,022	6,313	8,209
Net unilateral transfers to foreign countries (-).....	-5,837	-4,533	-4,962	-5,108	-5,423	-4,937	-4,747
Military supplies and services.....	-210	-526	-1,470	-2,630	-3,161	-2,605	-2,440
Grants and other government transfers.....	-5,106	-3,563	-3,106	-2,088	-1,776	-1,829	-1,772
Private remittances.....	-521	-444	-386	-417	-486	-503	-535
Direct investment (outflow of funds (-)).....	-660	-621	-528	-850	-664	-1,839	-2,072
Other U. S. capital.....	-545	-800	-696	-728	-862	-1,767	-2,102
Foreign long-term capital (outflow (-)).....		53	182	141	244	542	361
Increase or decrease (-) in foreign gold and liquid dollar assets.....	-92						
Errors and omissions.....	775	-30	470	505	167	692	876

Loans of the International Bank¹

(in millions of dollars)

Source: International Bank for Reconstruction and Development.

Country	No. of loans	Original amount	Net amount ²	Country	No. of loans	Original amount	Net amount ²
Africa: Algeria.....	1	\$ 10.0	\$ 10.0	Europe (contd.): Iceland...	5	\$ 5.9	\$ 5.9
Belgian Congo.....	2	80.0	80.0	Italy.....	5	239.6	238.0
East Africa.....	1	24.0	24.0	Luxemburg.....	1	12.0	11.8
Ethiopia.....	4	23.5	23.5	Netherlands.....	10	244.0	236.5
French West Africa.....	1	7.5	7.1	Norway.....	3	75.0	75.0
Nigeria.....	1	28.0	28.0	Turkey.....	6	63.4	60.7
Rhodesia & Nyasaland....	4	141.0	141.0	Yugoslavia.....	3	60.7	60.7
Ruanda-Urundi.....	1	4.8	4.8	Western Hemisphere:			
Union of South Africa....	6	160.2	160.2	Brazil.....	11	207.5	182.5
Asia: Burma.....	2	19.4	19.4	Chile.....	7	74.1	73.7
Ceylon.....	1	19.1	17.4	Colombia.....	11	111.3	111.2
India.....	18	415.6	397.1	Costa Rica.....	1	3.0	3.0
Iran.....	1	75.0	75.0	Ecuador.....	5	33.6	32.6
Iraq.....	1	12.8	6.3	El Salvador.....	2	23.6	23.6
Japan.....	11	154.9	152.0	Guatemala.....	1	18.2	18.2
Lebanon.....	1	27.0	27.0	Haiti.....	1	2.6	2.6
Pakistan.....	9	126.5	126.5	Honduras.....	2	9.7	9.7
Philippines.....	1	21.0	21.0	Mexico.....	8	205.8	186.3
Thailand.....	6	106.8	106.8	Nicaragua.....	10	23.0	23.0
Australasia: Australia....	6	317.7	317.7	Panama.....	3	7.4	6.8
Europe: Austria.....	6	67.3	66.7	Paraguay.....	1	5.0	4.5
Belgium.....	4	76.0	76.0	Peru.....	9	56.0	55.9
Denmark.....	1	40.0	40.0	Uruguay.....	3	64.0	64.0
Finland.....	6	65.3	65.1				
France.....	1	250.0	250.0	Total.....	204	3,818.8	3,728.8

¹ As of June 30, 1958. ² With cancellations and refundings deducted.

Par Values of Member Currencies¹

Source: International Monetary Fund.

Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar	Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar
Australia.....	Pound	224.000	0.446 429	Indonesia.....	Rupiah	(3)	(3)
Austria.....	Schilling	3.846 15	26.000 0	Iran.....	Rial	1.320 13	75.750 0
Belgium.....	Franc	2.000 00	50.000 0	Iraq.....	Dinar	280.000	0.357 143
Bolivia.....	Boliviano	0.526 316	190.000 0	Israel.....	Pound	55.555 6	1.800 00
Brazil.....	Cruzeiro	5.405 41	18.500 0	Italy.....	Lira	(3)	(3)
Burma.....	Kyat	21.000 0	4.761 90	Japan.....	Yen	0.277 778	360.000
Canada ²	Dollar			Jordan.....	Dinar	280.000	0.357 143
Ceylon.....	Rupee	21.000 0	4.761 90	Korea.....	Hwan	(3)	(3)
Chile.....	Peso	0.909 091	110.000	Lebanon.....	Pound	45.631 3	2.191 48
China.....	Yuan	(3)	(3)	Luxemburg.....	Franc	2.000 00	50.000 0
Colombia.....	Peso	51.282 5	1.949 98	Mexico.....	Peso	8.000 00	12.500 0
Costa Rica.....	Colón	17.809 4	5.615 00	Netherlands.....	Guilder	26.315 8	3.800 00
Cuba.....	Peso	100.000	1.000 00	Nicaragua.....	Córdoba	14.2857	7.000 00
Denmark.....	Krone	14.477 8	6.907 14	Norway.....	Krone	14.000 0	7.142 86
Dominican Republic..	Peso	100.000	1.000 00	Pakistan.....	Rupee	21.000 0	4.761 90
Ecuador.....	Sucre	6.666 67	15.000 0	Panamá.....	Balboa	100.000	1.000 00
Egypt.....	Pound	287.156	0.348 242	Paraguay.....	Guaraní	1.666 67	60.000 0
El Salvador.....	Colón	40.000 0	2.500 00	Peru.....	Sol	(4)	(4)
Ethiopia.....	Dollar	40.250 0	2.484 47	Philippines.....	Peso	50.000 0	2.000 00
Finland.....	Markka	0.312 500	320.000	Sweden.....	Krona	19.330 4	5.173 21
France.....	Franc	(3)	(3)	Syria.....	Pound	45.631 3	2.191 48
Germany, Federal Republic of.....	Deutsche Mark	23.809 5	4.200 00	Thailand.....	Baht	(3)	(3)
Greece.....	Drachma	(3)	(3)	Turkey.....	Lira	35.714 3	2.800 00
Guatemala.....	Quetzal	100.000	1.000 00	Union of South Africa	Pound	280.000	0.357 143
Haiti.....	Gourde	20.000 0	5.000 00	United Kingdom.....	Pound	280.000	0.357 143
Honduras.....	Lempira	50.000 0	2.000 00	United States.....	Dollar	100.000	1.000 00
Iceland.....	Króna	6.140 36	16.285 7	Uruguay.....	Peso	(3)	(3)
India.....	Rupee	21.000 0	4.761 90	Venezuela.....	Bolívar	29.850 7	3.350 00
				Yugoslavia.....	Dinar	0.333 333	300.000

¹ As of Jan. 15, 1958. ² No fixed value. ³ Par value not yet established. ⁴ In Nov. 1949, Peru introduced a new exchange system, but no agreement on a new par value has been reached.

FEDERAL INCOME TAX

If you are a citizen or a resident of the United States, and if your gross income for the year amounts to \$600 or more, you are required to file a return. This requirement applies to minors, as well as adults, and must be met even if you do not pay a tax.

If you are more than 65 years old, you are required to file only if your gross income is \$1,200 or more.

You must pay part of your tax in installments in the year in which you earned the income. This is the "pay-as-you-go" system. You are generally required to pay the rest of your tax when you file your return. It may turn out that you don't owe any additional tax when you file your

return, or you may even be entitled to a refund, in which case the refund will be paid to you automatically after your return is filed.

The "pay-as-you-go" system works in two ways, through withholding and declaration of estimated tax. You may be subject to either or both of these requirements.

If you are married, you and your wife are allowed to report your combined income and your combined deductions on a single return. This is called a joint return. Your combined income is then taxed as though half were yours and half hers. This will usually result in a lower tax.

Withholding Table for Employees Paid Weekly

If the wages are—		And the number of withholding exemptions claimed is—										
		0	1	2	3	4	5	6	7	8	9	10 or more
At least	But less than	The amount of tax to be withheld shall be—										
		18% of wages										
\$0.....	\$13.....	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$13.....	\$14.....	\$2.40	.10	0	0	0	0	0	0	0	0	0
\$14.....	\$15.....	2.60	.30	0	0	0	0	0	0	0	0	0
\$15.....	\$16.....	2.80	.50	0	0	0	0	0	0	0	0	0
\$16.....	\$17.....	3.00	.70	0	0	0	0	0	0	0	0	0
\$17.....	\$18.....	3.20	.80	0	0	0	0	0	0	0	0	0
\$18.....	\$19.....	3.30	1.00	0	0	0	0	0	0	0	0	0
\$19.....	\$20.....	3.50	1.20	0	0	0	0	0	0	0	0	0
\$20.....	\$21.....	3.70	1.40	0	0	0	0	0	0	0	0	0
\$21.....	\$22.....	3.90	1.60	0	0	0	0	0	0	0	0	0
\$22.....	\$23.....	4.10	1.70	0	0	0	0	0	0	0	0	0
\$23.....	\$24.....	4.20	1.90	0	0	0	0	0	0	0	0	0
\$24.....	\$25.....	4.40	2.10	0	0	0	0	0	0	0	0	0
\$25.....	\$26.....	4.60	2.30	0	0	0	0	0	0	0	0	0
\$26.....	\$27.....	4.80	2.50	.20	0	0	0	0	0	0	0	0
\$27.....	\$28.....	5.00	2.60	.30	0	0	0	0	0	0	0	0
\$28.....	\$29.....	5.10	2.80	.50	0	0	0	0	0	0	0	0
\$29.....	\$30.....	5.30	3.00	.70	0	0	0	0	0	0	0	0
\$30.....	\$31.....	5.50	3.20	.90	0	0	0	0	0	0	0	0
\$31.....	\$32.....	5.70	3.40	1.10	0	0	0	0	0	0	0	0
\$32.....	\$33.....	5.90	3.50	1.20	0	0	0	0	0	0	0	0
\$33.....	\$34.....	6.00	3.70	1.40	0	0	0	0	0	0	0	0
\$34.....	\$35.....	6.20	3.90	1.60	0	0	0	0	0	0	0	0
\$35.....	\$36.....	6.40	4.10	1.80	0	0	0	0	0	0	0	0

If the wages are—		And the number of withholding exemptions claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of tax to be withheld shall be—										
\$36.....	\$37.....	\$6.60	\$4.30	\$2.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
\$37.....	\$38.....	6.80	4.40	2.10	0	0	0	0	0	0	0	0
\$38.....	\$39.....	6.90	4.60	2.30	0	0	0	0	0	0	0	0
\$39.....	\$40.....	7.10	4.80	2.50	.20	0	0	0	0	0	0	0
\$40.....	\$41.....	7.30	5.00	2.70	.40	0	0	0	0	0	0	0
\$41.....	\$42.....	7.50	5.20	2.90	.50	0	0	0	0	0	0	0
\$42.....	\$43.....	7.70	5.30	3.00	.70	0	0	0	0	0	0	0
\$43.....	\$44.....	7.80	5.50	3.20	.90	0	0	0	0	0	0	0
\$44.....	\$45.....	8.00	5.70	3.40	1.10	0	0	0	0	0	0	0
\$45.....	\$46.....	8.20	5.90	3.60	1.30	0	0	0	0	0	0	0
\$46.....	\$47.....	8.40	6.10	3.80	1.40	0	0	0	0	0	0	0
\$47.....	\$48.....	8.60	6.20	3.90	1.60	0	0	0	0	0	0	0
\$48.....	\$49.....	8.70	6.40	4.10	1.80	0	0	0	0	0	0	0
\$49.....	\$50.....	8.90	6.60	4.30	2.00	0	0	0	0	0	0	0
\$50.....	\$51.....	9.10	6.80	4.50	2.20	0	0	0	0	0	0	0
\$51.....	\$52.....	9.30	7.00	4.70	2.30	0	0	0	0	0	0	0
\$52.....	\$53.....	9.50	7.10	4.80	2.50	.20	0	0	0	0	0	0
\$53.....	\$54.....	9.60	7.30	5.00	2.70	.40	0	0	0	0	0	0
\$54.....	\$55.....	9.80	7.50	5.20	2.90	.60	0	0	0	0	0	0
\$55.....	\$56.....	10.00	7.70	5.40	3.10	.80	0	0	0	0	0	0
\$56.....	\$57.....	10.20	7.90	5.60	3.20	.90	0	0	0	0	0	0
\$57.....	\$58.....	10.40	8.00	5.70	3.40	1.10	0	0	0	0	0	0
\$58.....	\$59.....	10.50	8.20	5.90	3.60	1.30	0	0	0	0	0	0
\$59.....	\$60.....	10.70	8.40	6.10	3.80	1.50	0	0	0	0	0	0
\$60.....	\$62.....	11.00	8.70	6.40	4.10	1.70	0	0	0	0	0	0
\$62.....	\$64.....	11.30	9.00	6.70	4.40	2.10	0	0	0	0	0	0
\$64.....	\$66.....	11.70	9.40	7.10	4.80	2.50	.20	0	0	0	0	0
\$66.....	\$68.....	12.10	9.80	7.40	5.10	2.80	.50	0	0	0	0	0
\$68.....	\$70.....	12.40	10.10	7.80	5.50	3.20	.90	0	0	0	0	0
\$70.....	\$72.....	12.80	10.50	8.20	5.90	3.50	1.20	0	0	0	0	0
\$72.....	\$74.....	13.10	10.80	8.50	6.20	3.90	1.60	0	0	0	0	0
\$74.....	\$76.....	13.50	11.20	8.90	6.60	4.30	2.00	0	0	0	0	0
\$76.....	\$78.....	13.90	11.60	9.20	6.90	4.60	2.30	0	0	0	0	0
\$78.....	\$80.....	14.20	11.90	9.60	7.30	5.00	2.70	.40	0	0	0	0
\$80.....	\$82.....	14.60	12.30	10.00	7.70	5.30	3.00	.70	0	0	0	0
\$82.....	\$84.....	14.90	12.60	10.30	8.00	5.70	3.40	1.10	0	0	0	0
\$84.....	\$86.....	15.30	13.00	10.70	8.40	6.10	3.80	1.50	0	0	0	0
\$86.....	\$88.....	15.70	13.40	11.00	8.70	6.40	4.10	1.80	0	0	0	0
\$88.....	\$90.....	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0	0	0	0
\$90.....	\$92.....	16.40	14.10	11.80	9.50	7.10	4.80	2.50	.20	0	0	0
\$92.....	\$94.....	16.70	14.40	12.10	9.80	7.50	5.20	2.90	.60	0	0	0
\$94.....	\$96.....	17.10	14.80	12.50	10.20	7.90	5.60	3.30	.90	0	0	0
\$96.....	\$98.....	17.50	15.20	12.80	10.50	8.20	5.90	3.60	1.30	0	0	0
\$98.....	\$100.....	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70	0	0	0
\$100.....	\$105.....	18.50	16.10	13.80	11.50	9.20	6.90	4.60	2.30	0	0	0
\$105.....	\$110.....	19.40	17.00	14.70	12.40	10.10	7.80	5.50	3.20	.90	0	0
\$110.....	\$115.....	20.30	17.90	15.60	13.30	11.00	8.70	6.40	4.10	1.80	0	0
\$115.....	\$120.....	21.20	18.80	16.50	14.20	11.90	9.60	7.30	5.00	2.70	.40	0
\$120.....	\$125.....	22.10	19.70	17.40	15.10	12.80	10.50	8.20	5.90	3.60	1.30	0
\$125.....	\$130.....	23.00	20.60	18.30	16.00	13.70	11.40	9.10	6.80	4.50	2.20	0
\$130.....	\$135.....	23.90	21.50	19.20	16.90	14.60	12.30	10.00	7.70	5.40	3.10	.80
\$135.....	\$140.....	24.80	22.40	20.10	17.80	15.50	13.20	10.90	8.60	6.30	4.00	1.70
\$140.....	\$145.....	25.70	23.30	21.00	18.70	16.40	14.10	11.80	9.50	7.20	4.90	2.60
\$145.....	\$150.....	26.60	24.20	21.90	19.60	17.30	15.00	12.70	10.40	8.10	5.80	3.50
\$150.....	\$160.....	27.90	25.60	23.30	21.00	18.70	16.40	14.10	11.70	9.40	7.10	4.80
\$160.....	\$170.....	29.70	27.40	25.10	22.80	20.50	18.20	15.90	13.50	11.20	8.90	6.60

If the wages are—		And the number of withholding exemptions claimed is—										
At least	But less than	0	1	2	3	4	5	6	7	8	9	10 or more
		The amount of tax to be withheld shall be—										
		18 percent of the excess over \$200 plus—										
\$170.....	\$180.....	\$31.50	\$29.20	\$26.90	\$24.60	\$22.30	\$20.00	\$17.70	\$15.30	\$13.00	\$10.70	\$8.40
\$180.....	\$190.....	33.30	31.00	28.70	26.40	24.10	21.80	19.50	17.10	14.80	12.50	10.20
\$190.....	\$200.....	35.10	32.80	30.50	28.20	25.90	23.60	21.30	18.90	16.60	14.30	12.00
\$200 and over.....		36.00	33.70	31.40	29.10	26.80	24.50	22.20	19.80	17.50	15.20	12.90

Rate Table for Separate Returns

If your taxable income is:		Your tax is:	
Not over \$2,000		20% of the taxable income	
Over \$ 2,000 but not over \$ 4,000.....		\$ 400, plus 22% of excess over \$ 2,000	
Over \$ 4,000 but not over \$ 6,000.....		\$ 840, plus 26% of excess over \$ 4,000	
Over \$ 6,000 but not over \$ 8,000.....		\$ 1,360, plus 30% of excess over \$ 6,000	
Over \$ 8,000 but not over \$ 10,000.....		\$ 1,960, plus 34% of excess over \$ 8,000	
Over \$ 10,000 but not over \$ 12,000.....		\$ 2,640, plus 38% of excess over \$ 10,000	
Over \$ 12,000 but not over \$ 14,000.....		\$ 3,400, plus 43% of excess over \$ 12,000	
Over \$ 14,000 but not over \$ 16,000.....		\$ 4,260, plus 47% of excess over \$ 14,000	
Over \$ 16,000 but not over \$ 18,000.....		\$ 5,200, plus 50% of excess over \$ 16,000	
Over \$ 18,000 but not over \$ 20,000.....		\$ 6,200, plus 53% of excess over \$ 18,000	
Over \$ 20,000 but not over \$ 22,000.....		\$ 7,260, plus 56% of excess over \$ 20,000	
Over \$ 22,000 but not over \$ 24,000.....		\$ 8,380, plus 59% of excess over \$ 22,000	
Over \$ 26,000 but not over \$ 32,000.....		\$ 10,740, plus 62% of excess over \$ 26,000	
Over \$ 32,000 but not over \$ 38,000.....		\$ 14,460, plus 65% of excess over \$ 32,000	
Over \$ 38,000 but not over \$ 44,000.....		\$ 18,360, plus 69% of excess over \$ 38,000	
Over \$ 44,000 but not over \$ 50,000.....		\$ 22,500, plus 72% of excess over \$ 44,000	
Over \$ 50,000 but not over \$ 60,000.....		\$ 26,820, plus 75% of excess over \$ 50,000	
Over \$ 60,000 but not over \$ 70,000.....		\$ 34,320, plus 78% of excess over \$ 60,000	
Over \$ 70,000 but not over \$ 80,000.....		\$ 42,120, plus 81% of excess over \$ 70,000	
Over \$ 80,000 but not over \$ 90,000.....		\$ 50,220, plus 84% of excess over \$ 80,000	
Over \$ 90,000 but not over \$100,000.....		\$ 58,620, plus 87% of excess over \$ 90,000	
Over \$100,000 but not over \$150,000.....		\$ 67,320, plus 89% of excess over \$100,000*	
Over \$150,000 but not over \$200,000.....		\$111,820, plus 90% of excess over \$150,000*	
Over \$200,000.....		\$156,820, plus 91% of excess over \$200,000*	

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Head of Household Returns

If your taxable income is:		Your tax is:	
Not over \$2,000		20% of the taxable income	
Over \$ 2,000 but not over \$ 4,000.....		\$ 400, plus 21% of excess over \$ 2,000	
Over \$ 4,000 but not over \$ 6,000.....		\$ 820, plus 24% of excess over \$ 4,000	
Over \$ 6,000 but not over \$ 8,000.....		\$ 1,300, plus 26% of excess over \$ 6,000	
Over \$ 8,000 but not over \$ 10,000.....		\$ 1,820, plus 30% of excess over \$ 8,000	
Over \$ 10,000 but not over \$ 12,000.....		\$ 2,420, plus 32% of excess over \$ 10,000	
Over \$ 12,000 but not over \$ 14,000.....		\$ 3,060, plus 36% of excess over \$ 12,000	
Over \$ 14,000 but not over \$ 16,000.....		\$ 3,780, plus 39% of excess over \$ 14,000	
Over \$ 16,000 but not over \$ 18,000.....		\$ 4,560, plus 42% of excess over \$ 16,000	
Over \$ 18,000 but not over \$ 20,000.....		\$ 5,400, plus 43% of excess over \$ 18,000	
Over \$ 20,000 but not over \$ 22,000.....		\$ 6,260, plus 47% of excess over \$ 20,000	
Over \$ 22,000 but not over \$ 24,000.....		\$ 7,200, plus 49% of excess over \$ 22,000	
Over \$ 24,000 but not over \$ 28,000.....		\$ 8,180, plus 52% of excess over \$ 24,000	
Over \$ 28,000 but not over \$ 32,000.....		\$ 10,260, plus 54% of excess over \$ 28,000	
Over \$ 32,000 but not over \$ 38,000.....		\$ 12,420, plus 58% of excess over \$ 32,000	
Over \$ 38,000 but not over \$ 44,000.....		\$ 15,900, plus 62% of excess over \$ 38,000	

Rate Table for Head of Household Returns (contd.)

If your combined taxable income is:		Your tax is:	
Over \$ 44,000 but not over \$ 50,000	.....	\$ 19,620, plus 66% of excess over \$ 44,000	
Over \$ 50,000 but not over \$ 60,000	.....	\$ 23,580, plus 68% of excess over \$ 50,000	
Over \$ 60,000 but not over \$ 70,000	.....	\$ 30,380, plus 71% of excess over \$ 60,000	
Over \$ 70,000 but not over \$ 80,000	.....	\$ 37,480, plus 74% of excess over \$ 70,000	
Over \$ 80,000 but not over \$ 90,000	.....	\$ 44,880, plus 76% of excess over \$ 80,000	
Over \$ 90,000 but not over \$100,000	.....	\$ 52,480, plus 80% of excess over \$ 90,000	
Over \$100,000 but not over \$150,000	.....	\$ 60,480, plus 83% of excess over \$100,000	
Over \$150,000 but not over \$200,000	.....	\$101,980, plus 87% of excess over \$150,000	
Over \$200,000 but not over \$300,000	.....	\$145,480, plus 90% of excess over \$200,000*	
Over \$300,000	.....	\$235,480, plus 91% of excess over \$300,000*	

* The tax cannot in any event be more than 87% of taxable income.

Rate Table for Joint Returns

If your combined taxable income is:		Your tax is:	
Not over \$4,000		20% of taxable income	
Over \$ 4,000 but not over \$ 8,000	.....	\$ 800, plus 22% of excess over \$ 4,000	
Over \$ 8,000 but not over \$ 12,000	.....	\$ 1,680, plus 26% of excess over \$ 8,000	
Over \$ 12,000 but not over \$ 16,000	.....	\$ 2,720, plus 30% of excess over \$ 12,000	
Over \$ 16,000 but not over \$ 20,000	.....	\$ 3,920, plus 34% of excess over \$ 16,000	
Over \$ 20,000 but not over \$ 24,000	.....	\$ 5,280, plus 38% of excess over \$ 20,000	
Over \$ 24,000 but not over \$ 28,000	.....	\$ 6,800, plus 43% of excess over \$ 24,000	
Over \$ 28,000 but not over \$ 32,000	.....	\$ 8,520, plus 47% of excess over \$ 28,000	
Over \$ 32,000 but not over \$ 36,000	.....	\$ 10,400, plus 50% of excess over \$ 32,000	
Over \$ 36,000 but not over \$ 40,000	.....	\$ 12,400, plus 53% of excess over \$ 36,000	
Over \$ 40,000 but not over \$ 44,000	.....	\$ 14,520, plus 56% of excess over \$ 40,000	
Over \$ 44,000 but not over \$ 52,000	.....	\$ 16,760, plus 59% of excess over \$ 44,000	
Over \$ 52,000 but not over \$ 64,000	.....	\$ 21,480, plus 62% of excess over \$ 52,000	
Over \$ 64,000 but not over \$ 76,000	.....	\$ 28,920, plus 65% of excess over \$ 64,000	
Over \$ 76,000 but not over \$ 88,000	.....	\$ 36,720, plus 69% of excess over \$ 76,000	
Over \$ 88,000 but not over \$100,000	.....	\$ 45,000, plus 72% of excess over \$ 88,000	
Over \$100,000 but not over \$120,000	.....	\$ 53,640, plus 75% of excess over \$100,000	
Over \$120,000 but not over \$140,000	.....	\$ 68,640, plus 78% of excess over \$120,000	
Over \$140,000 but not over \$160,000	.....	\$ 84,240, plus 81% of excess over \$140,000	
Over \$160,000 but not over \$180,000	.....	\$100,440, plus 84% of excess over \$160,000	
Over \$180,000 but not over \$200,000	.....	\$117,240, plus 87% of excess over \$180,000	
Over \$200,000 but not over \$300,000	.....	\$134,640, plus 89% of excess over \$200,000*	
Over \$300,000 but not over \$400,000	.....	\$223,640, plus 90% of excess over \$300,000*	
Over \$400,000	.....	\$313,640, plus 91% of excess over \$400,000*	

* The tax cannot in any event be more than 87% of combined taxable income.

SOCIAL SECURITY

The Social Security Act was passed in 1935 and subsequently amended in 1939, 1950, 1952, 1954, and 1958.

The act is administered by the Department of Health, Education and Welfare, of which the Social Security Administration is a part.

Old-Age, Survivors, and Disability Insurance

WHO IS COVERED?

Almost everyone who works fairly regularly. Self-employed doctors are the only large group not covered by this social security program.

To qualify for benefits or make payments possible for your survivors you must be in work covered by the law for a certain number of "quarters of coverage" after 1936 (for self-employment, after 1950). The number of quarters needed differs for different persons and depends on the date of your birth; in general, it is related to the length of time from 1936, from 1950, or from your twenty-first birthday and the time you reach retirement age. No one needs more than 40 quarters, and no one can qualify with less than 6. Your local social security office can tell you how long you need to work in covered employment under the present law.

WHO PAYS FOR THE INSURANCE?

Both workers and employers pay for the workers' insurance. Self-employed persons pay their own tax annually along with their income tax. Tax rates are scheduled to go up gradually until 1975:

Years	Workers and Employers Each to Pay	Self-employed to Pay
1959.....	2½%	3¼%
1960-62.....	3%	4½%
1963-65.....	3½%	5¼%
1965-68.....	4%	6%
1969 and after.....	4½%	6¾%

HOW TO APPLY FOR BENEFITS

You apply for benefits by filing a claim either in person or by mail at your nearest social security office. You can get the address either from the post office or from the phone book under the listing, United States Government—Department of Health, Education and Welfare—Social Security Administration. You will need certain kinds of proof, depending upon the type of benefit you are claiming. If it is an old-age benefit, you should have proof of age. A wife claiming old-age benefits based on her husband's earnings should have both proof of age and a copy of the marriage certificate. In the case of survivors' benefits, you will need a copy of the death certificate of the deceased worker. If formal proof is not available, the social security office will tell you what kinds of information will be acceptable.

WHAT DOES SOCIAL SECURITY OFFER?

The social security tax you pay gives you three different kinds of protection: (1) retirement benefits, (2) survivors' benefits, and (3) disability benefits.

Retirement benefits. A man becomes eligible for an old-age benefit at age 65, if he has retired under the definition in the law. A woman worker also is eligible for a full old-age benefit at 65, but she may retire at 62 and get 80% of her full benefit for the rest of her life. The closer she is to age 65 when she starts collecting her benefit, the larger the fraction of her full benefit she will get.

The amount of the old-age benefit you are entitled to is the key to all other benefits under the program. The old-age benefit is based on average monthly earnings, generally those after 1950. (Amounts over \$4,800 a year are not counted.) The table on page 796 gives examples of benefits.

Using the table as a guide, you will see that average monthly earnings of \$300

would give you a benefit of \$105 a month when you retire at 65.

If your wife is also 65, then she will get a wife's benefit that is equal to half your benefit. So if your benefit is \$105 your wife gets \$52.50 (cents are rounded to the nearest dime).

If your wife is younger than you, but not under 62, she can draw a reduced benefit that depends on the number of months before she will be 65. If she draws her benefit when she is 62, she will get about ¾ of your basic benefit, or \$39.40. (She will get this amount for the rest of her life, unless you should die first; then she can start getting the full widow's benefit, described below.)

If your wife is entitled to a worker's old-age benefit on her own earnings she can draw whichever—the worker's or the wife's—is larger. No one can draw two benefits at the same time.

If you have children under 18 when you retire, they will get a benefit equal to half your benefit, and so will your wife, in that case, even if she is under 62. However, total benefits based on your earnings cannot be more than \$254.10 a month or 80% of your average monthly wage. When your children reach age 18, their benefits will stop, except a benefit that is going to a child who is permanently and totally disabled. Such a child can continue to get his benefit as long as his disability meets the definition in the law.

If you are a woman worker entitled to an old-age benefit and you have a dependent husband aged 65 or over, he may draw a benefit similar to a wife's benefit at 65.

Survivor benefits. This feature of the social security program gives you valuable life insurance protection—in some cases over \$30,000 worth. The amount of protection is again geared to what the worker would be entitled to at 65. If you can estimate from the table what your basic monthly benefit would be at 65, this is what your survivors would get:

- 1. A cash payment to cover your burial expenses. This comes to 3 times the basic monthly benefit but no more than \$255.
- 2. A benefit for each child until he reaches 18. If there is only one child eligible, he gets 75% of the basic benefit. If there are two or more children, each one gets 50% of the basic benefit and an additional 25% is split among them. (A disabled child can continue to collect benefits after age 18.)
- 3. A mother's benefit for your widow, if she has children under 18 in her care. Her benefit is 75% of the basic benefit. She can collect this until the youngest child reaches 18. Payments stop then (they

What Benefits You Get Under Social Security

Based on an average monthly wage of	Retirement benefits			Survivors' benefits		
	Worker's monthly benefit ¹	Worker with 62-year-old wife ¹	Worker with 65-year-old wife ¹	Widow and 1 child	Widow and 2 children	Widow age 62 ²
\$100.....	\$ 59.00	\$ 79.70	\$ 88.50	\$ 88.60	\$ 88.60	\$ 44.30
150.....	73.00	98.60	109.50	109.50	120.00	54.80
200.....	84.00	114.40	126.00	126.00	161.60	63.00
250.....	95.00	128.90	142.50	142.50	190.10	71.30
300.....	105.00	141.80	157.50	157.50	210.20	78.80
350.....	116.00	156.60	174.00	174.00	232.00	87.00
400.....	127.00 ³	171.50 ³	190.50 ³	190.50 ³	254.10 ³	95.30 ³

¹ Also indicates amount worker aged 50-64 or worker and wife (aged 62 or 65) would get if disabled. ² Also indicates amount that would be paid to only child or parent. ³ These are maximum benefits under the new law of 1958, but they will not be payable for several years to come; that is, to receive maximum benefits, the average salary of the worker, excluding the lowest 5 years, would have to be \$4,800, starting Jan. 1, 1959.

will start again when she is 62). If she has a disabled child in her care who is getting a benefit after 18, then her benefit continues, too.

Total family benefits cannot go over \$254.10 a month or 80% of your average monthly wage.

4. If there are no children under 18, your wife can get a widow's benefit starting at age 62. This would come to 75% of the basic benefit.

5. Dependent parents can sometimes collect survivors' benefits, if the deceased worker leaves no wife or child. They are usually eligible if: (a) they were getting at least half their support from the deceased worker when he died, (b) they have reached retirement age (65 for the father, 62 for the mother), and (c) they are not eligible for an old-age benefit based on their own earnings. Each parent would then get 75% of the basic benefit.

A woman worker can provide survivors' benefits for any of these dependents, if she has been contributing at least half their support: (1) her children under age 18, (2) her disabled child after 18, if the child is unmarried and was disabled before 18, and (3) her dependent widowed husband at age 65, if he hasn't remarried. Or, if she had no other dependents, her parents could collect benefits if they met the tests in paragraph (5) above.

Here is an example of survivors' benefits in one family situation: John Jones dies, leaving a wife and two children aged one and three. His average monthly wage was \$300. This would have given him an old-age benefit of \$105, if he had lived to 65. This is what his family gets: (1) a cash burial payment of \$255; (2) a total monthly benefit of \$131.50 for the two children; and (3) a \$78.80 monthly benefit for Mrs. Jones. Total benefits for the family come to \$210.20 a month while the two children are under 18. When the older child reaches 18 his benefits stop, but the younger child's benefit is raised

to \$78.80 a month. Mrs. Jones and the younger child then collect a total of \$157.50 a month for two years until the child reaches 18. Then all payments stop. When Mrs. Jones becomes 62 (assuming she hasn't remarried), she will again be paid \$78.80 a month.

Disability benefits. These are a new feature of the social security insurance system. Disability benefits are paid to two groups of people:

1. An insured worker with a total disability can collect his full old-age benefit at age 50, instead of waiting until 65. Under the new law of 1958, eligible dependents of disabled workers will receive the usual benefits. To be eligible for disability benefits, a person must: (a) have worked in employment (or self-employment) covered by social security for about 5 out of the 10 years before he became disabled; (b) be suffering from a physical or mental disability of indefinite duration; and (c) be so disabled that he can't work, or at least "engage in any substantial gainful activity." If he meets those tests, his benefits will start after a 6-month waiting period.

The applicant is referred to the State vocational rehabilitation agency and, if rehabilitation services are proposed and the applicant refuses them without good cause, his disability benefit is suspended. If the worker gets workmen's compensation benefit or another federal benefit based on disability, his disability benefit is reduced by the amount of such benefit—except that a benefit paid by the Veterans Administration because of service-connected disability will not result in any reduction.

2. The permanently disabled child of a deceased or retired person who was covered by social security can collect benefits after age 18 (when children's benefits are ordinarily cut off). If the child is eligible, his mother can also get a benefit. The child must: (a) have been disabled before age 18 (but he need not have been draw-

ing benefits before 18), (b) be unmarried, and (c) have been dependent on the deceased or retired worker for at least half his support. The child's benefit would be 75% of the father's basic benefit and his mother would get the same amount. A disabled child can get a benefit based on his mother's earnings, instead of his father's, if she has contributed to at least half his support and has died or is drawing an old-age benefit.

The disabled child's benefit can actually be paid to adults, if the above tests are met. For example, an unmarried person, aged 40, who was born blind and is dependent on his father for support can collect a disabled child's benefit as soon as his father starts drawing an old-age benefit or dies.

YOU CAN EARN INCOME WITHOUT LOSING BENEFITS

If you are 72 or over, you can earn any amount. If you are under 72, you can earn \$1,200 a year without losing any benefits. (Only earned income is counted, not pensions, dividends, etc.) For each \$80 (or fraction of \$80) over \$1,200, you can lose one month's benefit. For example, \$1,290 could cancel two months' benefits, and \$2,081 could mean loss of the whole year's benefits. But you will not lose the benefit for any month in which you did not work as an employee for \$100 or more and did not perform substantial services in self-employment. For example, if you earned \$3,000 in 3 months and were idle the rest of the year, you would lose only 3 months' benefits.

When a man and wife are drawing old-age benefits based on his earnings, the wife will lose her benefit in any month that the husband loses his. But if a widow with young children loses her benefits by working, the children will continue to get theirs.

If you earn over \$1,200 a year while drawing benefits (and are under 72), you must report those earnings.

HOW TO PROTECT MY SOCIAL SECURITY ACCOUNT

1. *Always show your social security card when you start a new job.* In that way you will be sure that your earnings will be credited to *your* social security account and not someone else's. If you lose your social security card, apply for a new one. When a woman marries, she should apply for a new card showing her married name.

2. *Make a periodic check of earnings credited to your social security account.* You can do this by mailing postcard Form OAR-7004 to the Social Security Adminis-

tration, Baltimore, Md. (You can get this form at any social security office.) The reply will show total wages credited to your account since 1936 or when you started working. It's a good idea to check once every three years and prevent errors.

3. *If you should become permanently disabled, have your social security credits "frozen."* Social security benefits are usually based on your average earnings up to the date of death or retirement. A long period of sickness or disability could lower your average earnings and thus cut down or even eliminate the eventual benefit you or your family might get. But you can avoid this reduction in benefits by applying for a disability determination at your local social security office. Then the period of disability will not be counted.

PUBLIC ASSISTANCE

Aid to four groups of needy persons is provided under the Social Security Act through assistance programs administered by the states with grants from the Federal government. The Federal share of the individual payment, for the aged, the blind, and the disabled is 4/5 of the first \$30 of the average monthly payment plus half the balance, up to the \$65 maximum, specified in the law. A blind person may earn up to \$50 a month and have such earnings disregarded when the state is determining whether he is needy. For aid to dependent children, the Federal government pays 14/17 of the first \$17 paid per person per month plus 1/2 the balance within the maximums (\$32 for one needy adult, \$32 for the first child, and \$23 for each additional child). To be eligible a child must be (1) under 18; (2) without parental support or care because of the death, absence from the home, or incapacity of a parent and (3) living with a parent or specified relative.

The law also permits federal sharing in the payments to doctors and others for medical care in behalf of needy persons—beyond what such persons get directly in their assistance payment.

Unemployment Insurance

Unemployment insurance is managed jointly by the states and the national government. Most states began paying benefits in 1938 and 1939.

UNDER WHAT CONDITIONS CAN THE WORKER COLLECT

The laws vary from state to state. In general, a waiting period of one week is required before collecting unemployment insurance; the worker must be able to work, must not have quit without good cause or have been discharged for misconduct; he must not be involved in a

State Unemployment Compensation Maximums

State	Weekly benefit	Duration (in weeks)	State	Weekly benefit	Duration (in weeks)
Alabama.....	\$28	20	Montana.....	\$32	22
Alaska.....	45*	26	Nebraska.....	32	20
Arizona.....	30	26	Nevada.....	37.50*	26
Arkansas.....	26	18	New Hampshire.....	32	26
California.....	40	26	New Jersey.....	35	26
Colorado.....	35	26	New Mexico.....	30	24
Connecticut.....	40*	26	New York.....	45	26
Delaware.....	35	26	North Carolina.....	32	26
D. C.....	30*	26	North Dakota.....	26*	20
Florida.....	30	16	Ohio.....	33*	26
Georgia.....	30	22	Oklahoma.....	28	26
Hawaii.....	35	20	Oregon.....	40	26
Idaho.....	40	26	Pennsylvania.....	35	30
Illinois.....	30*	26	Rhode Island.....	30	26
Indiana.....	33	20	South Carolina.....	26	22
Iowa.....	30	24	South Dakota.....	28	20
Kansas.....	34	20	Tennessee.....	30	22
Kentucky.....	32	26	Texas.....	28	24
Louisiana.....	25	20	Utah.....	37	26
Maine.....	33	26	Vermont.....	28	26
Maryland.....	35*	26	Virginia.....	28	18
Massachusetts.....	35*	26	Washington.....	35	26
Michigan.....	30*	26	West Virginia.....	30	24
Minnesota.....	38	26	Wisconsin.....	38	26½
Mississippi.....	30	20	Wyoming.....	41*	26
Missouri.....	33	26			

* This will be increased for unemployed persons with dependents. NOTE: On June 4, 1958, a new law was passed giving states the option of obtaining Federal loans to finance a temporary extension of unemployment compensation for unemployed workers who had exhausted their benefits, for a period equal to 50% of what they were entitled to under state laws.

labor dispute; above all, he must be willing to take a job in his field at prevailing wage rates. Other restrictions on payments involve leaving for marriage, pregnancy or further education.

The unemployed worker must go to the local state employment service office to register his claim for unemployment benefits and must register for work. If a suitable opening is available in his field, he must accept it or lose his unemployment payments. If a worker moves out of his own state, he can still collect at his new residence; the state where he is now located will act as agent for the other state, which pays his benefits.

WHO PAYS FOR THE INSURANCE?

The cost is borne by the employer in all but two states and Alaska. Each State (Alaska excepted) has a sliding scale of rates. The standard rate is set at 2.7% of taxable payroll in most states. But employers with records of steady employment (that is, few layoffs) are rewarded with rates lower than the standard 2.7%. The average rate for employers in 1956 was 1.3%. Tax is payable on only the first \$3,000 of a worker's pay, except in Delaware, Nevada, Oregon, and Rhode Island, where the limit is set at \$3,600, and in Alaska where the limit is \$4,200. Employees as well as employers pay a tax in

Alabama (0.1%), New Jersey (¼ of 1%), and Alaska (½ of 1%).

Employers pay an additional unemployment tax to the Federal Government—0.3% of the \$3,000 paid to each employee. This money is returned to the states in the form of federal grants for administrative expenses of the program; any amounts over these costs, up to \$200 million, is put in a special loan fund on which the states may draw when their payment funds are low, and the rest of the excess is assigned to the states to supplement the grants for administrative costs.

WHO IS COVERED AND WHO IS NOT?

Requirements vary from state to state, but all states cover firms having at least 4 employees for 20 weeks or more a year. In some states, firms with only one employee are covered. Certain classes of workers are specifically exempt under some or all state laws: farm workers, domestic workers, members of the employer's family, insurance agents on commission, workers in nonprofit organizations, student nurses, internes and casual labor.

Railroad Workers

These are covered by the Railroad Retirement Act, passed in 1935 and amended in 1937 and 1946. The social security provisions of this act are administered by the Railroad Retirement Board.

THE UNITED NATIONS



Its Major Cases and Actions

IRAN

Iran presented the first case before the Security Council on Jan. 19, 1946, demanding an end to Russian "interference" in Azerbaijan province, which Russia had brought under its control through a puppet government. Iran also demanded that Russia keep her promise to withdraw all occupation troops by Mar. 2. The Council kept the matter on the agenda. Russia withdrew her troops May 6.

GREECE

On Dec. 3, 1946, Greece complained to the Security Council that Communist-led rebels in northern Greece were being aided by Albania, Bulgaria and Yugoslavia. The Council named an investigating committee, which reported May 23, 1947, that those 3 nations were guilty. A Russian veto of July 29 prevented the Council's acceptance of the report. In Sept. 1948, the U. N. Balkan Commission, which continued to watch developments, again condemned the 3 nations for continuing aid to the Greek rebels. However, 3 months previously, on June 28, 1948, Marshal Tito's Yugoslavia had broken with Moscow. Thereafter, the Greek Communist-led rebellion faded out.

ATOMIC ENERGY CONTROL

On Dec. 31, 1946, a U. N. commission of 11 nations recommended the "Baruch plan" sponsored by the U. S. for international control and inspection. Only Russia dissented. In June 1947, she submitted a vastly different control plan, limiting international inspection so greatly that the secret making of atomic bombs could not be discovered. On May 17, 1948, the U. N. commission voted (9-2) to suspend work on international atomic control, blaming Russia for the deadlock. A Russian veto of June 22 prevented the Security Council from approving the majority-approved control plan. The topic then went to the General Assembly, which, on Nov. 4, 1948, adopted (40-6) the U. S.-sponsored plan; but nothing could be done to put it into effect because of Soviet-bloc opposition.

PALESTINE

A General Assembly special session met Apr. 28, 1947, at the request of Great Britain to consider Palestine. An 11-nation investigating committee recommended Aug. 31 that Britain give up control and that an Arab and a Jewish state be established. This partition plan was approved by the

Assembly in Nov. 1947, but proved impossible to enforce.

Britain ceased to govern Palestine on May 14, 1948. Israel proclaimed her independence and was attacked by 5 neighboring Arab nations. The U. N. made 6 appeals to both sides to stop the war; the last brought about a truce from June 11 to July 9. Intermittent fighting took place thereafter. Count Folke Bernadotte, the U. N. mediator, was murdered Sept. 17 near Jerusalem. He was succeeded by Dr. Ralph J. Bunche.

Israel signed an armistice with Egypt on Feb. 24, 1949, and with Jordan on Apr. 3. On May 11, the U. N. voted (37-12) to admit Israel as the 59th member.

INDONESIA

On July 30, 1947, Australia called the Security Council's attention to the fighting between the Netherlands and the Indonesian Republic. The Council, on Aug. 1, ordered both sides to cease hostilities. A Good Offices Commission was sent to Indonesia, and it effected a truce Jan. 17, 1948. In Dec. 1948, the Dutch attacked Jakarta, then the Indonesian capital, and the Council again issued a cease-fire order. Dutch troops were withdrawn from around Jakarta in July 1949. Indonesia thereafter peacefully achieved independence from the Netherlands.

INDIA-PAKISTAN

On Jan. 2, 1948, India appealed to the U. N. to stop alleged aggression by Pakistan. Fighting had broken out over which nation should control the province of Kashmir. The Security Council sent a commission, which proposed that Kashmir's future be determined by a plebiscite. The Council agreed on Apr. 21, but both sides raised objections. Early in 1949, the U. N. commission succeeded in obtaining a truce; and, on Mar. 14, 1950, the Council substituted a mediator, who was to seek demilitarization of the areas of Kashmir held by India and Pakistan and to try for a plebiscite. Two mediators failed.

RUSSIAN BOYCOTT

Soviet Delegate Malik walked out of the Security Council on Jan. 13, 1950, because it had refused (6-3) Russia's demand that Nationalist China be replaced in the U. N. by Communist China. The boycott ended on Aug. 1. Again the Council voted (8-3) to refuse membership to Communist China.

KOREA

Russia occupied the northern half of Korea after World War II, and the U. S. occupied the southern half below the 38th parallel. The understanding was that the occupying powers would set up an independent republic to govern the entire country. Russia refused to co-operate. The U. S. then referred the problem to the U. N., and the General Assembly voted Nov. 5, 1947, to send a commission to Korea to set up a free government. Russia, however, boycotted the commission and refused to allow it to enter North Korea. The commission therefore supervised free elections in South Korea and assisted in setting up the Republic of Korea with its capital at Seoul.

HUNGARY

Sparked by student demonstrations, street riots in Hungary in Oct. 1956, took on the proportions of rebellion. The Communist government called for Soviet help, and Russian tanks rolled into Budapest on Oct. 24. The Communists sought to appease the rebellious people by putting in as Premier a man, Imre Nagy, who had been ousted from the party as a "Titoist."

Nagy promised to throw off Russian shackles, and by Nov. 1, Russian tanks and troops had withdrawn from Budapest. On Nov. 4, however, the Russian tanks returned in force, shooting freely and killing civilians. The Russians set up a new puppet government headed by János Kadar.

The General Assembly on Nov. 4, in a special session, called on Russia to get its troops out of Hungary "without delay."

In the ensuing 6 weeks, the General Assembly passed 4 more resolutions about the Soviet crushing of Hungary.

One of the resolutions (Dec. 12, 1956) was an outright condemnation of Russia for "violation of the Charter by the U.S.S.R. in depriving Hungary of its liberty and independence." The vote was 55 to 8, which constituted a world-wide indictment.

The General Assembly decided in January 1957 to name a five-man committee to investigate from outside Hungary. On it were representatives of Denmark, Tunisia, Uruguay, Ceylon and Australia.

The committee heard testimony from 111 Hungarians, mainly refugees, in Europe and America. It reported unanimously on June 20, 1957, that the Hungarian uprising had been a spontaneous revolt of the people and that the crushing of the revolt by Soviet Russian troops had cost between 2,500 and 3,000 lives.

Meanwhile, people had begun fleeing from Communist Hungary on a mass scale

almost unprecedented. By the end of April 1957, some 175,000 Hungarians had sought asylum in Austria.

SUEZ

On Oct. 29, 1956, Israeli armed forces launched a major attack into the Gaza Strip and into Egypt's Sinai Desert territory.

An emergency special session of the U. N. General Assembly adopted on the night of Nov. 1-2, by a vote of 64 in favor, 5 against, 6 abstentions, a United States resolution calling upon all parties involved in hostilities in the area to agree to an immediate cease-fire. By that time, Britain and France were involved in the fighting.

Heeding the General Assembly call, Britain and France announced on Nov. 3 that they would stop military action.

By direction of the General Assembly, a United Nations Emergency Force was established to keep the peace. The first units landed at Ismailia, midway point on the Suez Canal, on Nov. 11, 1956.

On Feb. 21, Israel agreed to pull out its last troops if the U. N. Emergency Force stationed peace-keeping troops on the Aqaba Gulf and in the Gaza Strip. The U. N. Emergency Force troops were so stationed, and they became the first uniformed peace-preserving unit in the history of the U. N.

The nations which contributed troops were Brazil, Canada, Colombia, Denmark, Finland, India, Norway, Sweden and Yugoslavia.

LEBANON

In July, 1958, the United States responded to a plea for help from the little country of Lebanon at the eastern end of the Mediterranean, which had been in the throes of insurrection allegedly aided from its neighbor Syria, lately affiliated with Egypt in the new United Arab Republic. At Lebanon's request, U. S. Marines were landed there. Almost simultaneously, nearby Jordan requested and received British troops to safeguard the pro-West regime.

The U. N. already had a team of about 130 observers in Lebanon. In the Security Council, the Soviet Union now cast its 84th and 85th vetoes to kill resolutions (supported by the West) designed to strengthen U. N. forces in the Mideast.

The General Assembly was summoned into a rare emergency session which opened Aug. 8. A unanimous resolution directed Secretary-General Dag Hammarskjöld to go to the Middle East and see what arrangements could be made to restore stability and facilitate withdrawal of U. S. and British troops.

The 81 Members of the United Nations, 1958

Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ³	Country	Signed U. N. Decla- ration ¹	Joined U. N. Organi- zation ²	League of Nations ³
Afghanistan.....	....	1946	1934-46	Japan.....	....	1956	1920-35
Albania.....	....	1955	1920-46	Jordan.....	....	1955	.....
Argentina.....	....	1945	1920-46	Laos.....	....	1955	.....
Australia.....	1942	1945	1920-46	Lebanon.....	1945	1945	.....
Austria.....	....	1955	1920-40	Liberia.....	1944	1945	1920-46
Belgium.....	1942	1945	1920-46	Libya.....	....	1955	.....
Bolivia.....	1943	1945	1920-46	Luxembourg.....	1942	1945	1920-46
Brazil.....	1943	1945	1920-28	Malaya, Federation of.....	....	1957	.....
Bulgaria.....	....	1955	1920-46	Mexico.....	1942	1945	1931-46
Burma.....	....	1948	.....	Morocco.....	....	1956	.....
Byelorussian S.S.R. ⁴.....	....	1945	.....	Nepal.....	....	1955	.....
Cambodia.....	....	1955	.....	Netherlands.....	1942	1945	1920-46
Canada.....	1942	1945	1920-46	New Zealand.....	1942	1945	1920-46
Ceylon.....	....	1955	.....	Nicaragua.....	1942	1945	1920-38
Chile.....	1945	1945	1920-40	Norway.....	1942	1945	1920-46
China.....	1942	1945	1920-46	Pakistan.....	....	1947	.....
Colombia.....	1943	1945	1920-46	Panama.....	1942	1945	1920-46
Costa Rica.....	1942	1945	1920-26	Paraguay.....	1945	1945	1920-37
Cuba.....	1942	1945	1920-46	Peru.....	1945	1945	1920-41
Czechoslovakia.....	1942	1945	1920-46	Philippines.....	1942	1945	.....
Denmark ⁵.....	....	1945	1920-46	Poland ⁶	1942	1945	1920-46
Dominican Republic.....	1942	1945	1924-46	Portugal.....	....	1955	1920-46
Ecuador.....	1945	1945	1934-46	Romania.....	....	1955	1920-42
El Salvador.....	1942	1945	1920-39	Saudi Arabia.....	1945	1945	.....
Ethiopia.....	1942	1945	1923-46	Spain.....	....	1955	1920-41
Finland.....	....	1955	1920-46	Sudan.....	....	1956	.....
France.....	1944	1945	1920-46	Sweden.....	....	1946	1920-46
Ghana.....	....	1957	.....	Thailand (formerly Siam).....	....	1946	1920-46
Greece.....	1942	1945	1920-46	Tunisia.....	....	1956	.....
Guatemala.....	1942	1945	1920-38	Turkey.....	1945	1945	1932-46
Haiti.....	1942	1945	1920-44	Ukrainian S.S.R. ⁴.....	....	1945	.....
Honduras.....	1942	1945	1920-38	Union of South Africa.....	1942	1945	1920-46
Hungary.....	....	1955	1922-41	U.S.S.R.....	1942	1945	1934-39
Iceland.....	....	1946	.....	United Arab Republic ⁷	1945	1945	(⁸)
India.....	1942	1945	1920-46	United Kingdom.....	1942	1945	1920-46
Indonesia.....	....	1950	.....	United States.....	1942	1945	.....
Iran.....	1943	1945	1920-46	Uruguay.....	1945	1945	1920-46
Iraq.....	1943	1945	1932-46	Venezuela.....	1945	1945	1920-40
Ireland.....	....	1955	1923-46	Yemen.....	....	1947	.....
Israel.....	....	1949	.....	Yugoslavia.....	1942	1945	1920-46
Italy.....	....	1955	1920-39				

¹ Declaration of United Nations was originally signed by 26 nations in Washington, D. C., on Jan. 1, 1942; 21 states later adhered to Declaration. ² U. N. officially came into existence Oct. 24, 1945. ³ League was formally dissolved Apr. 18, 1946. Nations withdrawing before that time did so voluntarily, except U.S.S.R., which was expelled. Other members of League were: Estonia (1921-46), Germany (1926-35), Latvia (1921-46), Lithuania (1921-46), Switzerland (1920-46). ⁴ Admission as separate nation approved at San Francisco Conference. ⁵ Tried to attend San Francisco Conference June 5, 1945, after its liberation. ⁶ Not represented at San Francisco Conference, but subsequently signed Charter as original member. ⁷ Formed by union in 1958 of Egypt and Syria, both original members of U. N. ⁸ Egypt was a member of League (1937-46); Syria was not a member.

United Nations Headquarters

The first regular session of the General Assembly held at Central Hall, Westminster, London, voted that Interim Headquarters of the Organization should be located in New York. In August 1946, an Interim Headquarters was set up at Lake Success on Long Island, in a part of the Sperry Gyroscope Co.'s plant. The New York City building at Flushing Meadow, site of the 1939 World's Fair, was converted for the use of the General Assembly. The search for a permanent home ended in December 1946, when the General Assembly accepted an offer from John

D. Rockefeller, Jr., of \$8,500,000 for the purchase of the present Headquarters site—an 18-acre tract alongside Manhattan's East River. The U. S. Government loaned the U. N. \$65,000,000 interest free, which is being repaid in annual installments.

Architectural plans drawn up by an international Board of Design were approved by the Assembly, and construction began in September 1948. By mid-1950, the 39-story Secretariat Building was ready for occupancy, and in the spring of 1951 "United Nations, New York" became the Organization's permanent address.

Principal Organs of the United Nations

(For functions, see Charter, pp. 611-23. For officers of Secretariat and member nations of councils, see pp. 608-09.)

SECRETARIAT

Secretary-General

Dag Hammarskjöld, of Sweden, Apr. 10, 1953, to the present.

Former Secretary-General

Trygve Ljé, of Norway, Feb. 1, 1946, to Apr. 10, 1953.

GENERAL ASSEMBLY

The General Assembly is composed of all member states. It does most of its work in committees, of which there are 4 types: main, procedural, standing and ad hoc.

Main Committees

First Committee (Political and Security, including the regulation of armaments).
Special Political Committee.

Second Committee (Economic and Financial).

Third Committee (Social, Humanitarian and Cultural).

Fourth Committee (Trusteeship, including Non-Self-Governing Territories).

Fifth Committee (Administrative and Budgetary).

Sixth Committee (Legal).

Presidents of the General Assembly

Paul-Henri Spaak, of Belgium, 1946, First Session.

Oswaldo Aranha, of Brazil, 1947, First Special Session and Second Regular Session.

Dr. José Arce, of Argentina, 1948, Second Special Session.

Herbert V. Evatt, of Australia, 1948, Third Session.

Carlos P. Romulo, of the Philippines, 1949, Fourth Session.

Nasrollah Entezam, of Iran, 1950, Fifth Session.

Luis Padilla Nervo, of Mexico, 1951, Sixth Session.

Lester B. Pearson, of Canada, 1952, Seventh Session.

Mrs. Vijaya Lakshmi Pandit, of India, 1953, Eighth Session.

Eelco N. van Kleffens, of the Netherlands, 1954, Ninth Session.

José Maza, of Chile, 1955, Tenth Session.

Rudecindo Ortega, of Chile, Nov., 1956, First and Second Emergency Sessions.

Prince Wan Waithayakon, of Thailand, 1956-57, Eleventh Session.

Sir Leslie Munro, of New Zealand, 1957-58, Twelfth Session and Third Emergency Special Session.

Charles Malik, of Lebanon, 1958, Thirteenth Session.

SECURITY COUNCIL

The Security Council is composed of 5 permanent members—China, France, the U.S.S.R., the United Kingdom and the

U. S. There are 6 nonpermanent members serving 2-year terms.

The Military Staff Committee is composed of the Chiefs of Staff of the 5 permanent members or their representatives; the Disarmament Commission, established by the General Assembly under the Security Council, had the following membership during 1958: Argentina, Australia, Belgium, Brazil, Burma, Canada, China, Colombia, Czechoslovakia, France, India, Iraq, Italy, Japan, Mexico, Norway, Panama, Poland, Sweden, Tunisia, the U.S.S.R., the United Arab Republic, the United Kingdom, the U. S. and Yugoslavia.

ECONOMIC AND SOCIAL COUNCIL

The Economic and Social Council is composed of 18 nonpermanent members serving 3-year terms.

Functional Commissions

Transport and Communications Commission.

Statistical Commission.

Population Commission.

Social Commission.

Commission on Human Rights.

Commission on the Status of Women.

Commission on Narcotic Drugs.

Commission on International Commodity Trade.

Regional Economic Commissions

Economic Commission for Europe.

Economic Commission for Asia and the Far East.

Economic Commission for Latin America.

Economic Commission for Africa

TRUSTEESHIP COUNCIL

The Trusteeship Council is composed of 14 members—seven members—Australia, Belgium, France, Italy, New Zealand, the United Kingdom and the U. S., which administer trust territories; China and the U.S.S.R., other permanent members of the Security Council which do not administer trust territories, and 5 other members elected by the General Assembly serving 3-year terms. This arrangement ensures that the total number of Council members is equally divided between those U. N. members which administer trust territories and those which do not.

The Trusteeship Agreements concern the following territories (the Administering Authority in each case is in italics):

Nauru—*Australia (on behalf of Australia, New Zealand and the United Kingdom).*

New Guinea—*Australia.*

Ruanda-Urundi—*Belgium.*

Cameroons—*France.*

Togoland—*France.*

Somaland—*Italy.*

Western Samoa—New Zealand.

Cameroons }
Tanganyika } *United Kingdom.*

The Territory of the Pacific Islands—composed of the former Japanese-mandated islands of the Marshalls, Marianas (with the exception of Guam) and Carolines—is a strategic Trust Territory administered by the U. S.

The General Assembly decided at its Fourth Session in 1949 that former Italian Somaliland was to be placed under the Trusteeship System for 10 years, at the end of which time (that is, in 1960) it would become independent. Italy became the Administering Authority on Apr. 1, 1950.

Agencies of the United Nations

International Atomic Energy Agency (IAEA)

Established: Statute for IAEA, approved on October 26, 1956 at a conference held at U. N. Headquarters, New York, came into force on July 29, 1957. The Agency, while not a specialized agency, is under the aegis of the U. N.

Purposes: To promote the peaceful uses of atomic energy, and to ensure that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.

Headquarters: Vienna, Austria.

Specialized Agencies

International Labour Organisation (ILO)

Established: Apr. 11, 1919, when constitution was adopted as Part XIII of Treaty of Versailles.

Purposes: To contribute to establishment of lasting peace by promoting social justice; to improve, through international action, labor conditions and living standards; to promote economic and social stability.

Headquarters: Geneva, Switzerland.

Food and Agriculture Organization of the United Nations (FAO)

Established: Oct. 16, 1945, when constitution became effective.

Purposes: To raise nutrition levels and living standards; to secure improvements in production and distribution of food and agricultural products.

Headquarters: Viale delle Terme Di Caracalla, Rome, Italy.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

Established: Nov. 4, 1946, when 20th signatory to constitution deposited instrument of acceptance with government of United Kingdom.

Purposes: To promote collaboration among nations through education, science and culture in order to further justice, rule of law and human rights and freedoms without distinction of race, sex, language or religion.

Headquarters: 19 Ave. Kléber, Paris 16, France.

World Health Organization (WHO)

Established: Apr. 7, 1948, when 26 members of the United Nations had accepted its constitution adopted July 22, 1946, by International Health Conference in New York City.

Purposes: To aid attainment by all peoples of the world of highest possible level of health.

Headquarters: Palais des Nations, Geneva, Switzerland.

International Bank for Reconstruction and Development (Bank)

Established: Dec. 27, 1945, when Articles of Agreement drawn up at Bretton Woods Conference in July, 1944, came into force. Began operations June 25, 1946.

Purposes: To assist in reconstruction and development of economies of members by making loans directly and promoting private foreign investment; to promote balanced growth of international trade.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Finance Corporation (IFC)

(Affiliate of International Bank)

Established: Charter of IFC came into force on July 20, 1956. Although IFC is affiliated with the International Bank, it is a separate legal entity and its funds are entirely separate from those of the Bank. However, membership in the Corporation is open only to Bank members.

Purposes: Its objective is to further economic development by encouraging the growth of productive private enterprise in its member countries, particularly in the less developed areas. It is empowered to invest in productive private enterprises in association with private investors, and without government guarantee of repayment in cases where sufficient private capital is not available on reasonable terms; and to serve as a clearing house to bring together investment opportunities, private capital, both foreign and domestic, and experienced management.

Headquarters: 1818 H St., NW, Washington, D. C.

International Monetary Fund (Fund)

Established: Dec. 27, 1945, when Articles of Agreement drawn up at Bretton Woods Conference in July 1944 came into force. Fund began operations on March 1, 1947.

Purposes: To promote international monetary co-operation and expansion of international trade; to promote exchange stability; to assist in establishment of multilateral system of payments in respect of current transactions between members.

Headquarters: 1818 H St., NW, Washington 25, D. C.

International Trade Organization (ITO) General Agreement on Tariffs and Trade (GATT)

Established: Although establishment of ITO and the bringing into operation of the Havana Charter, on which it was to be based, have not taken place, one of the main objectives of that Charter has been embodied in an international commercial treaty, known as the General Agreement on Tariffs and Trade (GATT). Provision has been made for a permanent Organization for Trade Cooperation (OTC) to administer GATT and to come into being when it has been accepted by countries which account for a high proportion of world trade.

Inter-Governmental Maritime Consultative Organization (IMCO)

Established: Convention establishing IMCO came into existence on March 17, 1958 when 21 nations, of which 7 each had a total tonnage of at least one million gross tons of shipping, became parties to the convention drawn up by U. N. Maritime Conference at Geneva, Feb. 19 to Mar. 6, 1948. (Preparatory Committee established by Conference will cease to exist after IMCO holds its first constituent assembly, scheduled to meet in London in January, 1959.)

Purposes: To promote co-operation among governments in technical problems of international shipping and to encourage removal of discriminatory action by governments and of unfair restrictive practices by shipping concerns.

Headquarters: To be in London.

Other Agencies are: Int'l Civil Aviation Org., Universal Postal Union, Int'l Telecommunication Union and World Meteorological Org.

Judges of the International Court of Justice

(Judges serve for a 9-year term and may be re-elected. Expiration dates of terms are shown in parentheses. All terms expire February 5 of the year designated. The seat of the Court is The Hague, Netherlands.)

President: Helge Klaestad, Norway (1961)

Vice President: Mohammad Zafrulla Khan, Pakistan (1961)

E. C. Armand-Ugon, Uruguay (1961)
Abdel Hamid Badawi, United Arab Republic (1967)
Jules Basdevant, France (1964)
Roberto Córdova, Mexico (1964)
José Gustavo Guerrero, El Salvador (1964)
Green H. Hackworth, U. S. (1961)

F. I. Kojevnikov, U.S.S.R. (1961)
Hersch Lauterpacht, U. K. (1964)
L. M. Moreno Quintana, Argentina (1964)
Sir Percy Spender, Australia (1967)
Jean Spiropoulos, Greece (1967)
V. K. Wellington Koo, China (1967)
Bohdan Winiarski, Poland (1967)

Officers of the Secretariat

Ahmed Bokhari, Under-Secretary for Public Information
Ralph J. Bunche, Under-Secretary for Special Political Affairs
Andrew W. Cordier, Executive Assistant to the Secretary-General
Anatoly Dobrynin, Under-Secretary for the Department of Political and Security Council Affairs
Victor Hoo, Under-Secretary for Conference Services
Hugh L. Keenleyside, Director General, Technical Assistance Administration
John McDiarmid, Acting Director of Personnel

David Owen, Executive Chairman, Technical Assistance Board
Maurice Pate, Executive Director, United Nations Children's Fund
Dragoslav Protitch, Under-Secretary for the Department of Trusteeship and Information from Non-Self-Governing Territories
Philippe de Seynes, Under-Secretary for Economic and Social Affairs
Constantin Stavropoulos, Legal Counsel
Sir Humphrey Trevelyan, Under-Secretary for Special Political Affairs
Bruce Turner, Controller
David B. Vaughan, Director of General Services

United Nations Costs

U. N. budget appropriations for 1958 were approved at \$55,062,850. Member states contribute on a scale determined by

the General Assembly. In 1958, the U. S. paid 32.51% of the cost, the U.S.S.R. paid 13.62% and the U. K. paid 7.62%.

Security Council

Representatives (as of March 1958)

Canada: C. S. A. Ritchie.
 China: Tingfu F. Tsiang.
 Colombia: Alfonso Araujo.
 France: Guillaume Georges-Picot.
 Iraq: Hashim Jawad.
 Japan: Koto Matsudaira.
 Panama: Jorge Illueca.
 Sweden: Gunnar V. Jarring.
 U.S.S.R.: Arkady A. Sobolev.
 United Kingdom: Sir Pierson Dixon.
 United States: Henry Cabot Lodge, Jr.

Economic and Social Council

Representatives (26th session, July 1958)

Brazil: Augusto Frederico Schmidt.
 Canada: G. F. Davidson.
 Chile: Enrique Bernstein.
 China: Cheng Paonan.
 Costa Rica: Christian Tattenbach.
 Finland: Mrs. Tynne Leivo-Larsson.
 France: Pierre Abelin.
 Greece: Costa P. Caranicas.
 Indonesia: Ali Sastroamidjojo.

Mexico: Daniel Cosío Villegas.
 Netherlands: J. M. A. H. Luns.
 Pakistan: Amir Azam Khan.
 Poland: Jerzy Michalowski.
 Sudan: Bashir El Bakri.
 U.S.S.R.: Aleksey Vasilevich Zakharov.
 United Kingdom: W. D. Ormsby-Gore.
 United States: Christopher H. Phillips.
 Yugoslavia: Dobrivoje Vidic.

Trusteeship Council

Representatives (22nd session, June-August 1958)

Australia: E. Ronald Walker.
 Belgium: Alfred Claeys Bouuaert.
 Burma: Sithu U Thant.
 China: Chiping H. C. Kiang.
 France: Jacques Kosciuszko-Morizet.
 Guatemala: Emilio Arenales Catalan.
 Haiti: Edmond Sylvaln.
 India: Arthur S. Lall.
 Italy: Eugenio Pala.
 New Zealand: Sir Leslie Munro.
 U.S.S.R.: Ivan I. Lobanov.
 United Arab Republic: Omar Loutfi.
 United Kingdom: Sir Andrew Cohen.
 United States: Mason Sears.

Elected Member States Serving Terms on U. N. Councils

Security Council

an. 1946-Dec. 1946: Egypt; Mexico; Netherlands.
 an. 1946-Dec. 1947: Australia; Brazil; Poland.
 an. 1947-Dec. 1948: Belgium; Colombia; Syria.
 an. 1948-Dec. 1949: Argentina; Canada; Ukrainian S.S.R.
 an. 1949-Dec. 1950: Cuba; Egypt; Norway.
 an. 1950-Dec. 1951: Ecuador; India; Yugoslavia.
 an. 1951-Dec. 1952: Brazil; Netherlands; Turkey.
 an. 1952-Dec. 1953: Chile; Greece; Pakistan.
 an. 1953-Dec. 1954: Colombia; Denmark; Lebanon.
 an. 1954-Dec. 1955: Brazil; New Zealand; Turkey.
 an. 1955-Dec. 1956: Belgium; Iran; Peru.
 an. 1956-Dec. 1957: Australia; Cuba; Yugoslavia. Yugoslavia resigned at the end of 1956 and was replaced by the Philippines.
 an. 1957-Dec. 1958: Colombia; Iraq; Sweden.
 an. 1958-Dec. 1959: Canada; Japan; Panama.

Economic and Social Council

an. 1946-Dec. 1946: Colombia; Greece; Lebanon; Ukrainian S.S.R.; U. S.; Yugoslavia.
 an. 1946-Dec. 1947: Cuba; Czechoslovakia; India; Norway; United Kingdom; U.S.S.R.
 an. 1946-Dec. 1948: Belgium (resigned 1947 and replaced by Netherlands); Canada; Chile; China; France; Peru.
 an. 1947-Dec. 1949: Byelorussian S.S.R.; Lebanon; New Zealand; Turkey; U. S.; Venezuela.
 an. 1948-Dec. 1950: Australia; Brazil; Denmark; Poland; United Kingdom; U.S.S.R.

Jan. 1949-Dec. 1951: Belgium; Chile; China; France; India; Peru.
 Jan. 1950-Dec. 1952: Canada; Czechoslovakia; Iran; Mexico; Pakistan; U. S.
 Jan. 1951-Dec. 1953: Philippines; Poland; Sweden; United Kingdom; Uruguay; U.S.S.R.
 Jan. 1952-Dec. 1954: Argentina; Belgium; China; Cuba; Egypt; France.
 Jan. 1953-Dec. 1955: Australia; India; Turkey; U. S.; Venezuela; Yugoslavia.
 Jan. 1954-Dec. 1956: Czechoslovakia; Ecuador; Norway; Pakistan; United Kingdom; U.S.S.R.
 Jan. 1955-Dec. 1957: Argentina; China; Dominican Republic; Egypt; France; Netherlands.
 Jan. 1956-Dec. 1958: Brazil; Canada; Greece; Indonesia; U. S.; Yugoslavia.
 Jan. 1957-Dec. 1959: Finland; Mexico; Pakistan; Poland; U.S.S.R.; United Kingdom.
 Jan. 1958-Dec. 1960: Chile, China, Costa Rica, France, Netherlands, Sudan.

Trusteeship Council

Jan. 1947-Dec. 1949: Iraq; Mexico.
 Jan. 1948-Dec. 1950: Costa Rica (resigned Sept. 1949 and replaced by Dominican Republic); Philippines.
 Jan. 1950-Dec. 1952: Argentina (resigned with effect of Jan. 1, 1952 and replaced by El Salvador); Iraq.
 Jan. 1951-Dec. 1953: Dominican Republic; Thailand.
 Jan. 1953-Dec. 1955: El Salvador; Syria.
 Jan. 1954-Dec. 1956: Haiti; India.
 Jan. 1956-Dec. 1958: Burma; Guatemala; Syria.
 Jan. 1957-Dec. 1959: Haiti, India.

Delegation Heads to the United Nations

Members Represented at Headquarters*

Afghanistan: A. R. Pazhwak.
 Albania: Reis Malle.
 Argentina: Dr. Mario Amadeo.
 Australia: Dr. E. Ronald Walker.
 Austria: Dr. Franz Matsch.
 Belgium: Joseph Nisot.
 Bolivia: Hugo Lopez Avila.
 Brazil: Cyro de Freitas-Valle.
 Bulgaria: Dr. Peter G. Voutov.
 Burma: U Thant.
 Cambodia: M. Nong Kimny.
 Canada: C. S. A. Ritchie.
 Ceylon: Sir Claude Corea.
 Chile: José Serrano.
 China: Dr. Tingfu F. Tsiang.
 Colombia: Dr. Alfonso Araujo.
 Costa Rica: Gonzalo Ortiz-Martin.
 Cuba: Dr. Emilio Nuñez-Portuondo.
 Czechoslovakia: Josef Ullrich.
 Denmark: Aage Hesselund-Jensen.
 Dominican Rep.: Dr. Enrique de Marchena.
 Ecuador: José A. Correa.
 El Salvador: Dr. Miguel Rafael Urquía.
 Ethiopia: Ato Haddis Alemayehou.
 Finland: George de Gripenberg.
 France: Guillaume Georges-Picot.
 Greece: Christian X. Palamas.
 Guatemala: Dr. José Rolz Bennett.
 Haiti: Edmond Sylvain.
 Honduras: Carlos Adrian Perdomo.
 Hungary: Peter Mod.
 Iceland: Thor Thors.
 India: Arthur S. Lall.
 Indonesia: Ali Sastroamidjojo.
 Iran: Dr. Djalal Abdoh.
 Iraq: Dr. Hashim Jawad.
 Ireland: Frederick H. Boland.
 Israel: Abba Eban.
 Italy: Dr. Leonardo Vitetti.
 Japan: Koto Matsudaira.
 Jordan: Baha Ud-Din Toukan.
 Laos: Oout R. Souvannavong.
 Lebanon: Karim Azkoul.
 Liberia: Charles T. O. King.
 Malaya: Ismail bin Dato Abdul Rahman.
 Mexico: Rafael de la Colina.
 Nepal: Rishikesh Shaha.
 Netherlands: C. W. A. Schurmann.
 New Zealand: Sir Leslie Munro.
 Nicaragua: Dr. Guillermo Sevilla-Sacasa.
 Norway: Silvert A. Nielsen.
 Pakistan: Prince Aly Khan.
 Panama: Col. Alejandro Remon.
 Paraguay: Dr. Pacifico Montero de Vargas.
 Peru: Carlos Mackehenie.
 Philippines: Felixberto M. Serrano.
 Poland: Jerzy Michalowski.
 Portugal: Dr. Vasco Vieira Garin.
 Romania: Mihai Magheru.
 Saudi Arabia: Ahmad Shukairy.
 Spain: Don Jose Felix de Lequerica.
 Sudan: Yacoub Osman.
 Sweden: Gunnar V. Jarring.
 Thailand: Prince Wan Waihayakon.
 Tunisia: Mongi Slim.
 Turkey: Seyfullah Esin.
 Union of S. Af.: J. S. F. Botha.
 U.S.S.R.: Arkady A. Sobolev.
 United Arab Republic: Omar Loutfi.
 United Kingdom: Sir Pierson Dixon.
 United States: Henry Cabot Lodge, Jr.
 Uruguay: Prof. Enrique Rodriguez Fabregat.
 Venezuela: Dr. Carlos Sosa-Rodriguez.
 Yemen: Mohamed Kamil Abdul Rahim.
 Yugoslavia: Dobrovoje Vidic.

* Permanent representatives to U. N. as of Sept. 1958. Not all nations maintain permanent missions.

U. S. Permanent Mission to U. N.

Henry Cabot Lodge, Jr.: Ambassador Extraordinary and Plenipotentiary, Permanent Representative to U. N.
 James J. Wadsworth: Ambassador Extraordinary and Plenipotentiary, Deputy Representative to U. N.
 James W. Barco: Minister, Deputy Representative on Security Council, Counsellor of Mission.
 Mason Sears: Representative on Trusteeship Council.
 Christopher H. Phillips: Representative on Economic and Social Council.
 Norman Armour, Jr.: Principal Liaison Officer, Thomas A. Bartlett, Adviser on Political and Security Affairs.
 Francis W. Carpenter: Director, News Services.
 Albert S. Watson: Executive Director.

Albert F. Bender, Jr.: Adviser, Legal and International Organization Affairs.

U. S. Delegation to the 13th Session of the General Assembly Representatives

Henry Cabot Lodge	Herman Phleger
Michael J. Mansfield	George McGregor
Bourke B. Hickenlooper	Harrison

Alternate Representatives

James J. Wadsworth	Watson W. Wise
Mrs. Oswald B. Lord	Irving Solomon
Miss Marian Anderson	

The Secretary of State, John Foster Dulles, served as Chairman of the U. S. Delegation, *ex officio*, during his presence at the session.

Security Council Vetoes

As of September 1958, 92 vetoes had occurred in the Security Council since the inception of the U. N. The U.S.S.R. had

cast 85 of them, France 4, the United Kingdom 2 and China 1. The United States had cast no vetoes.

CHARTER OF THE UNITED NATIONS

WE the peoples of the United Nations determined to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

To reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

To establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

To promote social progress and better standards of life in larger freedom, and for these ends

To practice tolerance and live together in peace with one another as good neighbors, and

To unite our strength to maintain international peace and security, and

To insure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

To employ international machinery for the promotion of the economic and social advancement of all peoples, have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective Governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations.

CHAPTER I

Purposes and Principles

Article 1

The purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;

3. To achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian

character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

Article 2

The Organization and its Members, in pursuit of the Purposes stated in Article 1, shall act in accordance with the following Principles:

1. The Organization is based on the principle of the sovereign equality of all its Members.

2. All Members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All Members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations.

5. All Members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The Organization shall ensure that states which are not Members of the United Nations act in accordance with these Principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

Membership

Article 3

The original Members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or having previously signed

the Declaration by United Nations of January 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

Article 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the Organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

Article 5

A Member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

Article 6

A Member of the United Nations which has persistently violated the Principles contained in the present Charter may be expelled from the Organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

Organs

Article 7

1. There are established as the principal organs of the United Nations; a General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice, and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

Article 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

The General Assembly Composition

Article 9

1. The General Assembly shall consist of all the members of the United Nations.

2. Each Member shall have not more than five representatives in the General Assembly.

Functions and Powers

Article 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and except as provided in Article 12, may make recommendations to the Members of the United Nations or to the Security Council or to both on any such questions or matters.

Article 11

1. The General Assembly may consider the general principles of cooperation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the Members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any Member of the United Nations, or by the Security Council, or by a state which is not a Member of the United Nations, in accordance with Article 35, paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such question to the state or states concerned or to the Security Council or to both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

Article 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendations with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the Members of the United Na-

tions if the General Assembly is not in session, immediately the Security Council ceases to deal with such matters.

Article 13

1. The General Assembly shall initiate studies and make recommendations for the purpose of:

(a) promoting international cooperation in the political field and encouraging the progressive development of international law and its codification;

(b) promoting international cooperation in the economic, social, cultural, educational, and health fields, and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

2. The further responsibilities, functions and powers of the General Assembly with respect to matters mentioned in paragraph 1 (b) above are set forth in Chapters IX and X.

Article 14

Subject to the provisions of Article 12, the General Assembly may recommend measures for the peaceful adjustment of any situation, regardless of origin, which it deems likely to impair the general welfare or friendly relations among nations, including situations resulting from a violation of the provisions of the present Charter setting forth the Purposes and Principles of the United Nations.

Article 15

1. The General Assembly shall receive and consider annual and special reports from the Security Council; these reports shall include an account of the measures that the Security Council has decided upon or taken to maintain international peace and security.

2. The General Assembly shall receive and consider reports from the other organs of the United Nations.

Article 16

The General Assembly shall perform such functions with respect to the international trusteeship system as are assigned to it under Chapters XII and XIII, including the approval of the trusteeship agreements for areas not designated as strategic.

Article 17

1. The General Assembly shall consider and approve the budget of the Organization.

2. The expenses of the Organization shall be borne by the Members as apportioned by the General Assembly.

3. The General Assembly shall consider and approve any financial and budgetary arrangements with specialized agencies re-

ferred to in Article 57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

Article 18

1. Each member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the non-permanent members of the Security Council, the election of the members of the Economic and Social Council, the election of members of the Trusteeship Council in accordance with paragraph 1 (c) of Article 86, the admission of new Members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of Members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting.

Article 19

A Member of the United Nations which is in arrears in the payment of its financial contributions to the Organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a Member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the Member.

Procedure

Article 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the Members of the United Nations.

Article 21

The General Assembly shall adopt its own rules of procedure. It shall elect its President for each session.

Article 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

The Security Council
Composition

Article 23

1. The Security Council shall consist of eleven Members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America shall be permanent members of the Security Council. The General Assembly shall elect six other Members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of members of the United Nations to the maintenance of international peace and security and to the other purposes of the Organization, and also to equitable geographical distribution.

2. The non-permanent members of the Security Council shall be elected for a term of two years. In the first election of the non-permanent members, however, three shall be chosen for a term of one year. A retiring member shall not be eligible for immediate re-election.

3. Each member of the Security Council shall have one representative.

Functions and Powers

Article 24

1. In order to insure prompt and effective action by the United Nations, its Members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the Purposes and Principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII, and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

Article 25

The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

Article 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and eco-

nomic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the Members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

Article 27

1. Each member of the Security Council shall have one vote.

2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven members.

3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that, in decisions under Chapter VI, and under paragraph 3 of Article 52, a party to a dispute shall abstain from voting.

Procedure

Article 28

1. The Security Council shall be so organized as to be able to function continuously. Each member of the Security Council shall for this purpose be represented at all times at the seat of the Organization.

2. The Security Council shall hold periodic meetings at which each of its members may, if it so desires, be represented by a member of the government or by some other specially designated representative.

3. The Security Council may hold meetings at such places other than the seat of the Organization as in its judgment will best facilitate its work.

Article 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

Article 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its President.

Article 31

Any Member of the United Nations which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that Member are specially affected.

Article 32

Any Member of the United Nations which is not a member of the Security

Council or any state which is not a Member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a Member of the United Nations.

CHAPTER VI

Pacific Settlement of Disputes

Article 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

Article 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

Article 35

1. Any Member of the United Nations may bring any dispute, or any situation of the nature referred to in Article 34 to the attention of the Security Council or of the General Assembly.

2. A state which is not a Member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

Article 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the Statute of the Court.

Article 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

Article 38

Without prejudice to the provisions of Articles 33 to 37, the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression

Article 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

Article 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

Article 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect.

to its decisions, and it may call upon the Members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.

Article 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate or have proved to be inadequate, it may take such action by air, sea, or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea, or land forces of Members of the United Nations.

Article 43

1. All Members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and Members or between the Security Council and groups of Members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

Article 44

When the Security Council has decided to use force it shall, before calling upon a Member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that Member, if the Member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that Member's armed forces.

Article 45

In order to enable the United Nations to take urgent military measures, Members shall hold immediately available national air-force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid

down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

Article 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

Article 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any Member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that Member in its work.

3. The Military Staff Committee shall be responsible under the Security Council for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

Article 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the Members of the United Nations or by some of them, as the Security Council may determine.

2. Such decisions shall be carried out by the Members of the United Nations directly and through their action in the appropriate international agencies of which they are members.

Article 49

The Members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

Article 50

If preventive or enforcement measures against any state are taken by the Security Council, any other state, whether a

Member of the United Nations or not, which finds itself confronted with special economic problems arising from the carrying out of those measures shall have the right to consult the Security Council with regard to a solution of those problems.

Article 51

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by Members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

CHAPTER VIII

Regional Arrangements

Article 52

1. Nothing in the present Charter precludes the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such arrangements or agencies and their activities are consistent with the Purposes and Principles of the United Nations.

2. The Members of the United Nations entering into such arrangements or constituting such agencies shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.

3. The Security Council shall encourage the development of pacific settlement of local disputes through such regional arrangements or by such regional agencies either on the initiative of the states concerned or by reference from the Security Council.

4. This Article in no way impairs the application of Articles 34 and 35.

Article 53

1. The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorization of the Security Council, with the exception of measures against any enemy state, as defined in par-

agraph 2 of this Article, provided for pursuant to Article 107 or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the Organization may, on request of the Governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in paragraph 1 of this Article applies to any state which during the Second World War has been an enemy of any signatory of the present Charter.

Article 54

The Security Council shall at all times be kept fully informed of activities undertaken or in contemplation under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

International Economic and Social Cooperation

Article 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

(a) higher standards of living, full employment, and conditions of economic and social progress and development;

(b) solutions of international economic, social, health, and related problems; and international cultural and educational co-operation; and

(c) universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

Article 56

All Members pledge themselves to take joint and separate action in cooperation with the Organization for the achievement of the purposes set forth in Article 55.

Article 57

1. The various specialized agencies, established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are

hereinafter referred to as specialized agencies.

Article 58

The Organization shall make recommendations for the coordination of the policies and activities of the specialized agencies.

Article 59

The Organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

Article 60

Responsibility for the discharge of the functions of the Organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

Economic and Social Council Composition

Article 61

1. The Economic and Social Council shall consist of eighteen Members of the United Nations elected by the General Assembly.

2. Subject to the provisions of paragraph 3, six members of the Economic and Social Council shall be elected each year for a term of three years. A retiring member shall be eligible for immediate reelection.

3. At the first election, eighteen members of the Economic and Social Council shall be chosen. The term of office of six members so chosen shall expire at the end of one year, and of six other members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each member of the Economic and Social Council shall have one representative.

Functions and Powers

Article 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the Members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

Article 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may coordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations.

Article 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the Members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

Article 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

Article 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of Members of the United Nations and at the request of specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

Article 67

1. Each member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the members present and voting.

Procedure

Article 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

Article 69

The Economic and Social Council shall invite any Member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that Member.

Article 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Article 71

The Economic and Social Council may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations and, where appropriate, with national organizations after consultation with the Member of the United Nations concerned.

Article 72

1. The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

CHAPTER XI

Declaration Regarding Non-Self-Governing Territories

Article 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and ac-

cept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

(a) to ensure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

(b) to develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

(c) to further international peace and security;

(d) to promote constructive measures of development, to encourage research, and to cooperate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic and scientific purposes set forth in this Article; and

(e) to transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

Article 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world, in social, economic, and commercial matters.

CHAPTER XII

International Trusteeship System

Article 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

Article 76

The basic objectives of the trusteeship system, in accordance with the Purposes

of the United Nations laid down in Article 1 of the present Charter, shall be:

(a) to further international peace and security;

(b) to promote the political, economic, social, and educational advancement of the inhabitants of the trust territories, and their progressive development towards self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

(c) to encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion, and to encourage recognition of the interdependence of the peoples of the world; and

(d) to ensure equal treatment in social, economic, and commercial matters for all Members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives and subject to the provisions of Article 80.

Article 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

(a) territories now held under mandate;

(b) territories which may be detached from enemy states as a result of the Second World War; and

(c) territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

Article 78

The trusteeship system shall not apply to territories which have become Members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

Article 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a Member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

Article 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79, and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which Members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

Article 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the Organization itself.

Article 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

Article 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social, and educational matters in the strategic areas.

Article 84

It shall be the duty of the administering authority to ensure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facili-

ties, and assistance from the trust territory in carrying out the obligations towards the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

Article 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

The Trusteeship Council Composition

Article 86

1. The Trusteeship Council shall consist of the following Members of the United Nations:

(a) those Members administering trust territories;

(b) such of those Members mentioned by name in Article 23 as are not administering trust territories; and

(c) as many other Members elected for three-year terms by the General Assembly as may be necessary to ensure that the total number of members of the Trusteeship Council is equally divided between those Members of the United Nations which administer trust territories and those which do not.

2. Each member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

Article 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

(a) consider reports submitted by the administering authority;

(b) accept petitions and examine them in consultation with the administering authority;

(c) provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

(d) take these and other actions in conformity with the terms of the trusteeship agreements.

Article 88

The Trusteeship Council shall formulate a questionnaire on the political, economic, social, and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

Article 89

1. Each member of the Trusteeship Council shall have one vote.

2. Decisions of the Trusteeship Council shall be made by a majority of the members present and voting.

Procedure

Article 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its President.

2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

Article 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

The International Court of Justice

Article 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed Statute, which is based upon the Statute of the Permanent Court of International Justice and forms an integral part of the present Charter.

Article 93

1. All Members of the United Nations are *ipso facto* parties to the Statute of the International Court of Justice.

2. A state which is not a Member of the United Nations may become a party to the Statute of the International Court of Justice on condition to be determined in each case by the General Assembly upon the recommendation of the Security Council.

Article 94

1. Each Member of the United Nations undertakes to comply with the decision of

the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

Article 95

Nothing in the present Charter shall prevent Members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

Article 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies, which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

The Secretariat

Article 97

The Secretariat shall comprise a Secretary-General and such staff as the Organization may require. The Secretary-General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the Organization.

Article 98

The Secretary-General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council, and of the Trusteeship Council, and shall perform such other functions as are entrusted to him by these organs. The Secretary-General shall make an annual report to the General Assembly on the work of the Organization.

Article 99

The Secretary-General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

Article 100

1. In the performance of their duties the Secretary-General and the staff shall not seek or receive instructions from any government or from any other authority external to the Organization. They shall

refrain from any action which might reflect on their position as international officials responsible only to the Organization.

2. Each Member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary-General and the staff and not to seek to influence them in the discharge of their responsibilities.

Article 101

1. The staff shall be appointed by the Secretary-General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence, and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

Miscellaneous Provisions

Article 102

1. Every treaty and every international agreement entered into by any Member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

Article 103

In the event of a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

Article 104

The Organization shall enjoy in the territory of each of its Members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

Article 105

1. The Organization shall enjoy in the territory of each of its Members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the Members of the United Nations and officials of the Organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the Organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of paragraphs 1 and 2 of this Article or may propose conventions to the Members of the United Nations for this purpose.

CHAPTER XVII

Transitional Security Arrangements

Article 106

Pending the coming into force of such special agreements referred to in Article 43 as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, October 30, 1943, and France, shall, in accordance with the provisions of paragraph 5 of that Declaration, consult with one another and, as occasion requires with other Members of the United Nations with a view to such joint action on behalf of the Organization as may be necessary for the purpose of maintaining international peace and security.

Article 107

Nothing in the present Charter shall invalidate or preclude action, in relation to any state which during the Second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the Governments having responsibility for such action.

CHAPTER XVIII

Amendments

Article 108

Amendments to the present Charter shall come into force for all Members of the United Nations when they have been adopted by a vote of two-thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations, including all the permanent members of the Security Council.

Article 109

1. A General Conference of the Members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any seven members of the Security Council. Each Member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two-thirds of the Members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

CHAPTER XIX

Ratification and Signature

Article 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary-General of the Organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original Members of the United Nations on the date of the deposit of their respective ratifications.

Article 111

The present Charter, of which the Chinese, French, Russian, English, and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

IN FAITH WHEREOF the representatives of the Governments of the United Nations have signed the present Charter.

DONE at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

RELIGION



Principal Religions of the World

Sources: *Encyclopaedia Britannica*, and various religious organizations.

Statistics of the world's religions are only very rough approximations. Aside from Christianity, few religions, if any, attempt to keep statistical records; and even Protestants and Catholics employ different methods of counting members. All persons of whatever age who have received baptism in the Catholic Church are counted as members, while in most Protestant Churches only those who "join" the church are numbered. The compiling of statistics is further complicated by the fact that in China one may be at the same time a Confucian, a Taoist and a Buddhist. In Japan, one may be both a Buddhist and a Shintoist.

Religion	North America	South America	Europe	Asia	Africa	Oceania ¹	Total
Total Christian.....	166,882,333	116,786,462	459,712,814	48,950,514	32,053,483	11,178,936	835,564,542
Roman Catholic.....	94,324,000 ²	114,261,000	233,693,000 ³	31,830,000	19,654,000	2,750,000	496,512,000
Eastern Orthodox.....	2,770,926		112,447,669	8,106,071	5,868,089		129,192,755
Protestant.....	69,787,407	2,525,462	113,572,145	9,014,443	6,531,394	8,428,936	209,859,787
Jewish ⁴	5,520,300	630,362	3,461,450	1,753,296	600,750	58,013	12,024,171
Moslem.....	33,000	342,615	12,425,300	321,524,930	86,178,853	102,000	420,606,698
Zoroastrian.....				140,000			140,000
Shinto.....				30,000,000			30,000,000
Taoist.....	15,000	17,000	12,000	50,000,000	1,200	8,000	50,053,200
Confucian.....	86,000	95,000	50,000	300,000,000	7,500	52,000	300,290,500
Buddhist.....	165,000	135,000	10,000	150,000,000			150,310,000
Hindu.....	10,000	275,000		321,652,286	300,000	100,000	322,337,286
Primitive.....	50,000	1,000,000		45,000,000	75,000,000	100,000	121,150,000
Others or none.....	61,978,667	4,304,561	87,597,436	224,222,974	21,648,214	2,699,051	402,450,903
Grand total.....	234,740,300	123,586,000	563,269,000	1,493,244,000	215,790,000	14,298,000	2,644,927,300

¹ Includes Australia, New Zealand and Oceania. ² Includes Catholics in Central America and the West Indies. ³ Includes Communist-controlled Eurasia. ⁴ Includes total Jewish population whether or not related to the synagogue.

History of Leading Religious Groups in the United States

(50,000 members or over; figures are for continental U. S.)

Source: *Yearbook of American Churches*.

Baptist

American Baptist Association.—A group of Independent Missionary Baptist Churches organized into an association in 1905. Members (1957): 630,000.

American Baptist Convention.—The early historical local independency of Baptist churches in America tended to impede the formation of any general organization until in 1814 a General Missionary Convention was formed to permit Baptists to express themselves in terms of missionary activities. In 1845, the state conventions in the South withdrew to organize the Southern Baptist Convention. In 1907, the Northern Baptist Convention was organized, a delegated body under whose direction the many agencies of the Baptists in the North and West now operate. In May, 1950, the name was changed to the American Baptist Convention. Members (1957): 1,536,276.

Baptist General Conference of America.—Formerly known as the Swedish Baptist General Conference of America. It has operated as a general conference since 1879. Members (1957): 61,724.

Conservative Baptist Association of America.—Organized in 1947, it is a body

with no authority over the local churches. Adherents consider the Bible infallible. Members (1957): 275,000.

Free Will Baptists.—A body of Arminian Baptists, organized in 1787 by Benjamin Randall in New Hampshire. Members (1957): 172,683.

The General Association of Regular Baptist Churches.—Founded in 1932 in Chicago by a group of churches which had withdrawn from the Northern Baptist Convention. Members (1957): 122,038.

General Baptists.—An Arminian group of Baptists, organized in 1607 and transplanted to the Colonies in 1714. It died down in the East but was revived in the Midwest in 1823 under Rev. Benoni Stinson. Members (1957): 56,862.

National Baptist Convention, U. S. A., Inc.—The older and parent convention of Negro Baptists. This body is to be distinguished from the National Baptist Convention of America, usually referred to as the "unincorporated" body. Members (1954): 4,557,416.

National Baptist Convention of America.—This is a body usually referred to as the "unincorporated" convention, not to be confused with the "incorporated" National

Baptist Convention, U. S. A., Inc., from which this body withdrew. Organized in 1895. Members (1956): 2,668,799.

National Baptist Evangelical Life and Soul Saving Assembly of U. S. A.—Organized in 1921 by A. A. Banks, Sr., as a charitable, educational, and evangelical organization. Members (1951): 57,674.

National Primitive Baptist Convention of the U. S. A.—A group of Negro Baptists opposed to all forms of church organization. Members (1952): 80,983.

North American Baptist Association.—Organized 1950 in Little Rock, Ark., as the result of a division in the American Baptist Association. In theology these churches are militantly fundamentalist. Members (1956): 261,202.

Primitive Baptists.—A large group of Baptists, largely through the South, who are opposed to all centralization, to modern missionary societies, and to Sunday schools. They are sometimes called "anti-missionary" Baptists. Members (1950): 72,000.

Southern Baptist Convention.—In 1845, Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention. Members (1957): 8,956,756.

United Baptists.—This group dates from meetings of Regular Baptists and Separate Baptists held in Richmond, Va., in 1787, and a meeting under the name United Baptists in Clark County, Ky., in 1801. Members (1955): 63,641.

The United Free Will Baptist Church.—A body which set up its organization in 1901. Though ecclesiastically distinct, they are in close relations with the Free Will Baptists. Members (1952): 100,000.

Catholic and Orthodox

Armenian Church of North America.—The American branch of the Ancient Church of Armenia. Established in the U. S. in 1889. Diocesan organization under the jurisdiction of the Holy See of Etchmiadzin, Armenia, U.S.S.R. Members (1957): 101,199.

The American Carpatho-Russian Orthodox Greek Catholic Church.—This church is a self-governing diocese in communion with the Ecumenical Patriarchate of Constantinople. On Sept. 19, 1938, the late Patriarch Benjamin I canonized the diocese in the name of the Orthodox Church of Christ. Members (1957): 100,000.

Greek Archdiocese of North and South America.—Greek-speaking Orthodox Christians have had parishes in the U. S. for the last seventy years. These were first under the jurisdiction of the Metropolitan of Athens and later under the Patriarchate of Constantinople. Political changes in Europe have been reflected in this country

and have brought difficulties in all branches of the Orthodox Church. In 1931, a general convention held in New York City under the presidency of Archbishop Athenagoras brought a large measure of unity and order. Members (1957): 1,150,000.

North American Old Roman Catholic Church.—This body is identical with the Roman Catholic Church in worship, faith, etc., but differs in discipline. It was received into union with the Eastern Orthodox Church by the Archbishop of Beirut in 1911 and by the Orthodox Patriarch of Alexandria in 1912. Members (1957): 83,435.

Polish National Catholic Church of America.—After long dissatisfaction with Roman Catholic Administration in many Polish parishes, this group was organized in 1904. Members (1957): 267,418.

The Roman Catholic Church.—The largest single group of Christians in the U. S., the Roman Catholic Church is under the spiritual leadership of Pope Pius XII. This group dates back to the priests who accompanied Columbus on his second voyage to the New World. A settlement, later discontinued, was made at St. Augustine, Fla. The continuous history of this Church in the colonies began at St. Mary's in 1634, in Maryland. Members (1957): 35,846,477.

Romanian Orthodox Episcopate of America.—This body of Eastern Orthodox Christians of Rumanian descent is under the spiritual supervision and canonical jurisdiction of the Bishop of the Romanian Orthodox Church of North and South America. Members (1957): 50,000.

The Russian Orthodox Church Outside Russia.—Organized in 1920 to unite the missions and parishes of the Russian Orthodox Church outside of Russia. Members (1955): 55,000.

The Russian Orthodox Greek Catholic Church of America.—The Russian Orthodox Catholic Church entered Alaska in 1792. In 1872, its headquarters were moved from Sitka to San Francisco and, in 1905, to New York. It administers churches in the U. S., Canada, Alaska, Aleutian Is., South America and Japan. Members (1957): 755,000.

U. S. Church Membership, 1957

Source: Yearbook of American Churches.

Religious group	Members
Buddhist.....	10,000
Old Catholic and Polish National Catholic.....	468,978
Eastern Orthodox.....	2,540,446
Jewish.....	5,255,600
Roman Catholic.....	35,846,477
Protestant.....	59,823,777
Total.....	103,945,278

NOTE: Compiled from figures furnished by 255 of the 267 religious bodies in the U. S.

Serbian Eastern Orthodox Church.—This body of the Eastern Orthodox Church has its own diocese and is under jurisdiction of the Serbian Patriarchate (Yugoslavia). Members (1957): 150,000.

Syrian Antiochian Orthodox Church.—This body is a division of the Orthodox Church which is under the jurisdiction of the Patriarch of Antioch. It is a member of the Federation of Orthodox Greek Catholic Churches in America. Members (1957): 110,000.

Ukrainian Orthodox Church of U.S.A.—This church was organized in the U. S. in 1919. Members (1957): 83,000.

Lutheran

American Lutheran Church.—This Church is a constituent body of the American Lutheran Conference. It is itself the result of the merger in 1930 of the Evangelical Lutheran Joint Synod of Ohio and Other States (org. 1918), the Evangelical Lutheran Synod of Iowa and Other States, (org. 1854), and the Lutheran Synod of Buffalo (org. 1845). Members (1956): 910,011.

Augustana Evangelical Lutheran Church.—This group, whose constituency originally was of Swedish extraction, is a member of the American Lutheran Conference and is also a participating body in the National Lutheran Council. Organized in 1860. Members (1957): 576,189.

Evangelical Lutheran Church.—In 1917 the United Norwegian Church, the Norwegian Synod and the Hauge Synod united under the name, Norwegian Lutheran Church of America. In 1930 this group became a constituent part of the American Lutheran Conference. The new name, The Evangelical Lutheran Church, was adopted at its General Convention in 1946. Members (1957): 1,058,722.

The Evangelical Lutheran Joint Synod of Wisconsin and Other States.—This group, a constituent part of the Synodical Conference, was organized in Wisconsin in 1850. Members (1956): 339,106.

Lutheran Church-Missouri Synod.—This group, the largest constituent part of the Synodical Conference, was organized in 1847, holds to an unwavering confessionalism and is the leader in the conservative group among the Lutherans. Members (1957): 2,150,230.

Lutheran Free Church.—This body was organized in 1897 as the result of differences of opinion in the United Norwegian Church over control of the Augsburg Seminary. It became a constituent part of the American Lutheran Conference in 1930. Members (1957): 74,219.

United Evangelical Lutheran Church.—This synod was organized in 1896 in Minneapolis by a merger of the two former

Danish Lutheran Synods in America—the Danish Ev. Luth. Church Conference (1884) and the Danish Ev. Luth. Church in North America (1893). Members (1957): 61,662.

United Lutheran Church in America.—This group dates back to the Ministerium of Pennsylvania, organized in 1748, and beyond that to early colonial days. It represents the union of the General Synod, General Council, and United Synod of the South in 1918. Members (1957): 2,235,455.

Methodist

African Methodist Episcopal Church.—This group was formed in Philadelphia in 1816 and extended throughout the South after the Civil War. Members (1951): 1,166,301.

African Methodist Episcopal Zion Church.—This group was organized in 1796, coming out of the John Street Methodist Church, New York. Members (1956): 761,000.

Christian Methodist Episcopal Church.—In 1870, the General Conference of the M.E. Church, South, approved the request of its colored membership for the formation of their conferences into a separate body. Members (1951): 392,167.

Free Methodist Church of North America.—This body, organized in 1860, grew out of a movement in the Genesee Conference of the Methodist Episcopal Church towards a more original Methodism. Members (1957): 54,673.

The Methodist Church.—In April, 1939 the Uniting Conference forming The Methodist Church was held by representatives of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist Church in the United States originated with the efforts of John and Charles Wesley, leaders of the revival movement in England in the eighteenth century. Methodist emigrants from Ireland planted Methodism in America about 1760. In 1771 Francis Asbury, one of Wesley's preachers, later a Bishop, landed in Philadelphia. The Methodist Episcopal Church was organized in 1784-85. The Methodist Episcopal Church, South, dated from 1846 the separation from the Methodist Episcopal Church having taken place over the slavery issue. The Methodist Protestant Church dated from 1830, and was organized over the issue of lay representation. Members (1957): 9,543,245.

Presbyterian

Cumberland Presbyterian Church.—In 1806, a presbytery (Cumberland) of the Presbyterian Church was dissolved by the Synod of Kentucky on account of its attitude toward revivalism. Members of the presbytery organized as an independent

body in 1810 and became the Cumberland Presbyterian Church. When this body attempted to reunite with the Presbyterian Church in 1906, a minority preferred to continue as an independent church. Members (1957): 86,340.

Presbyterian Church in the U. S.—This group is the branch of the Presbyterian Church which separated from the main body at the time of the Civil War. It is often called the "Southern" Presbyterian Church. Members (1957): 848,735.

Presbyterian Church in the United States of America.—This group appeared among the earliest colonists of America. Its first church was established about 1640. Members (1957): 2,775,464.

United Presbyterian Church of North America.—This group dates back to the Reformed Presbyterian (Covenanter) Church (1643) and the Associate Presbyterian (Seceder) Church (1733), both of Scotland. These two groups appeared in America in 1774 and 1753 respectively. They united and became the Associate Reformed Presbyterian Church in 1782. A minority, however, continued as the Associate Presbyterian Church. In 1858 the two groups united and became the United Presbyterian Church. Members (1957): 257,513.

Other Religious Bodies

Apostolic Overcoming Holy Church of God.—A Negro body incorporated in Alabama in 1919. Members (1956): 75,000.

Assemblies of God.—Independent, pentecostal, evangelical, missionary churches associated for co-operative effort in district and general councils. Organized in Arkansas in 1914. Members (1957): 482,352.

Buddhist Churches of America.—Organized in 1914 as the Buddhist Mission of North America, this group was incorporated in 1942 under the present name and represents Buddhism in this country, the faith based on "the anatman doctrine, supplemented by the idea of karma, and nirvana, the holy ease or a blissful mental state of absolute freedom from evil." Members (1957): 10,000.

The Christian and Missionary Alliance.—An evangelical, evangelistic and missionary movement organized in 1887. It stresses "the deeper Christian life and consecration to the Lord's service." Members (1957): 87,663.

Christian Churches (Disciples of Christ).—In the revival period of the early nineteenth century, a movement under Thomas Campbell and his son, Alexander, resulted in the establishment of a fellowship called Christians or Disciples. They believe that acts are unscriptural. Members (1956): 922,484.

Christian Reformed Church.—A group of Dutch Calvinists which dissented from the

Reformed Church in America in 1857 and which was strengthened by later accessions from the same source and by immigration. Members (1957): 221,969.

Church of Christ, Scientist.—Founded by Mary Baker Eddy in 1879. As defined by Mrs. Eddy, Christian Science is the scientific system of divine healing and the reinstatement of primitive Christianity.*

The Church of God.—Inaugurated by Bishop A. J. Tomlinson, who served as General Overseer 1903-43. Episcopal in administration. Members (1957): 71,777.

Church of God (Anderson, Ind.).—This group is one of the largest of the groups which have taken the name "Church of God." Its headquarters are at Anderson, Ind. It originated about 1880. Members (1957): 131,420.

Church of God (Cleveland, Tenn.).—This body, to be differentiated from the Church of God at Anderson, Ind., is a holiness group and pentecostal. It began in 1886 in Tennessee, under the name of Christian Union, reorganized in 1902 as the Holiness Church. In 1907 it adopted the name above. Members (1957): 150,227.

Church of God in Christ.—Organized in Arkansas in 1895, by C. P. Jones and C. H. Mason, who believed there was no salvation without holiness; incorporated 1897. Members (1957): 360,428.

Church of the Brethren (Conservative Dunkers).—German pietists from Crefeld, Germany, under the leadership of Peter Becker, entered the colonies in 1719, and settled at Germantown, Philadelphia, Pa. They were called Dunkers (baptizers) and were immersionists. The members are conservative as to attire, oaths or affirmations, resistance to force, temperance, and the like. Members (1957): 199,936.

Church of the Nazarene.—One of the larger holiness bodies, organized in Pilot Point, Tex., Oct. 1908. It is in general accord with the early doctrines of Methodism and emphasizes entire sanctification. Members (1957): 281,646.

Churches of Christ.—This body is made up of a large group of churches, formerly reported with the Disciples of Christ, but since the religious census of 1906, reported separately. They are strictly congregational and have no organization larger than the local congregation. Members (1957): 1,750,000.

Congregational Christian Churches.—Congregational churches date back to the Pilgrim Fathers and the early colonists of New England in 1620. The Christian churches date back to the Wesleyan and revival movements at the end of the eighteenth century. These two groups of churches were merged at Seattle, Wash., in 1931. Members (1957): 1,392,632.

*Membership figure not available. The manual of the church forbids "the numbering of people and the reporting of such statistics for publication."

Evangelical and Reformed Church.—This body was formed on June 26, 1934, at Cleveland, Ohio, by a union of the Evangelical Synod of North America and the Reformed Church in the United States. The union was unique in that it left all details to be adjusted afterwards. The constitution was declared in effect at the General Synod which met at Lancaster, Pa., in June 1940. Members (1957): 800,042.

Evangelical Covenant Church of America. A transplantation to the U. S., in 1885, of a free-church movement in the Swedish state church. Until recently the name has been the Swedish Evangelical Mission Covenant. Members (1957): 56,321.

The Evangelical United Brethren Church.—This group had its origin in Johnstown, Pa., November 16, 1946, in the consummation of organic union between the Evangelical Church and the Church of the United Brethren in Christ. Both these former communions had their beginning in Pennsylvania in the evangelistic movement of the early 19th century. Jacob Albright was the founder of the Evangelical Church, and Dr. Philip William Otterbein was the founder of the United Brethren Church in 1800. Members (1957): 746,460.

Friends, The Five Years Meeting of.—The Five Years Meeting of Friends was formed in 1902 by 13 Yearly Meetings entering into a loose confederation. Since then, two of the original Yearly Meetings have withdrawn (Kansas and Oregon) and three Yearly Meetings outside the U. S. have joined. Members (1957): 67,957.

International Church of the Foursquare Gospel.—An evangelistic missionary body organized by Aimee Semple McPherson in 1927. The parent church is Angelus Temple in Los Angeles. Members (1957): 112,706.

Jehovah's Witnesses.—A group calling themselves primitive Christians. They believe that the Kingdom under Christ will replace all earthly governments. Members (1957): 208,260.

Jewish Congregations.—Jews arrived in the colonies before 1650. The first congregation is recorded in 1656, in New York City, the Shearith Israel (Remnant of Israel). Members (1954): 5,255,600.

Latter-day Saints, Church of Jesus Christ of.—A group in which the Bible, the Book of Mormon, the Doctrine and Covenants and the Pearl of Great Price are regarded as the word of God. The primitive church organization is sought. Members (1957): 1,339,638.

Latter-day Saints, Reorganized Church of Jesus Christ of.—A division among the Latter-day Saints (Mormons) occurred on the death of Joseph Smith in 1844. His son, Joseph Smith, became presiding officer of this group, which has headquarters at Independence, Mo. Members (1957): 146,076.

Mennonite Church.—The largest group of the Mennonites who began arriving in the U. S. in 1683, settling in Germantown, Pa. They derive their name from Menno Simons, born 1496. Members (1957): 71,186.

Moravian Church (Unitas Fratrum).—In 1735, Moravian missionaries of the pre-Reformation faith of John Huss came to Georgia and, in 1740, to Pennsylvania. They established the Moravian Church. Members (1957): 55,086.

Pentecostal Assemblies of the World, Inc.—A pentecostal holiness group originating in the early part of the century and found largely in the Midwest. Members (1957): 50,000.

Pentecostal Church of God of America, Inc.—Organized in 1919 at Chicago, Ill. Members (1957): 105,000.

The Protestant Episcopal Church.—This group entered the colonies with the earliest settlers as the Church of England. It became autonomous, adopted its present name in 1789. Members (1957): 2,965,137.

Reformed Church in America.—This group was established by the earliest Dutch settlers of New York as the Reformed Protestant Dutch Church in 1628. Members (1957): 213,544.

The Salvation Army.—An evangelistic organization, with a military government first set up by General William Booth in England and introduced into the U. S. in 1880. Members (1957): 250,156.

Seventh-day Adventists.—This body developed out of the Adventist movement (1833-1844), which emphasized the imminent personal return of Jesus Christ. It emphasized the observance of the seventh-day Sabbath and in 1863 was numerous enough to organize a conference. Members (1957): 291,567.

Spiritualists, International General Assembly of.—Organized in Buffalo, N. Y., in 1936. Members (1956): 164,072.

Unitarian Churches.—The Unitarian movement in Congregationalism, beginning in the eighteenth century, produced the American Unitarian Association in 1825. In 1865 a national conference was organized. Members (1957): 104,914.

United Church of Christ.—A merger in 1957 of the *Evangelical and Reformed Church* and the *Congregational Christian Churches*. Pending the adoption of a constitution for the United Church of Christ the present structures and procedures of the two groups will continue in effect.

United Pentecostal Church, Inc.—Pentecostal Church, Inc., and Pentecostal Assemblies of Jesus Christ merged in 1945 at St. Louis. Members (1957): 135,000.

Universalist Church of America.—The philosophy of Universalism originated in the 1st century A.D. and was carried to America in the 18th century. Members (1956): 70,516.

Bishops of the Protestant Episcopal Church

Source: Alexander M. Rodger, Secretary, The House of Bishops, 207 Fairmount Rd., Ridgewood, N. J.

(Note: M—Missionary Bishop; C—Coadjutor; S—Suffragan)

Presiding Bishop: Henry K. Sherrill, (until Oct. 1958), New York City. Vice President of National Council: John B. Bentley, New York City.

- Alabama: Chas. C. J. Carpenter, George M. Murray (S), Birmingham.
- Alaska: Wm. J. Gordon, Jr. (M), Fairbanks.
- Albany (N. Y.): Frederick L. Barry.
- Arizona: Arthur B. Kinsolving II (M), Phoenix.
- Arkansas: Robert R. Brown, Little Rock.
- Atlanta (Ga.): Randolph R. Claiborne.
- Bethlehem (Pa.): Frederick J. Warnecke.
- California: Karl M. Block, James A. Pike (C), San Francisco.
- Central America: David E. Richards, Ancon, C. Z.
- Central Brazil: Louis C. Melcher (M), Rio de Janeiro.
- Central New York: Malcolm E. Peabody, Walter M. Higley (S), Syracuse.
- Chicago: Gerald F. Burrill, Charles L. Street (S).
- Colorado: Joseph S. Minnis, Daniel Corrigan (S), Denver.
- Connecticut: Walter H. Gray, John H. Esquirol (S), Hartford.
- Cuba: Alexander H. Blankingship (M), Havana.
- Dallas (Tex.): C. Avery Mason, Joseph M. Harte (S).
- Delaware: J. Brooke Mosley, Wilmington.
- East Carolina: Thomas H. Wright, Wilmington, N. C.
- Eastern Oregon: Lane W. Barton (M), Bend.
- Easton (Md.): Allen J. Miller.
- Eau Claire (Wis.): William W. Horstick.
- Erie (Pa.): William Crittenden.
- European Churches: Norman B. Nash, Boston, Mass.
- Florida: Hamilton West, Jacksonville.
- Fond du Lac (Wis.): William H. Brady.
- Georgia: Albert R. Stuart, Savannah.
- Haiti: C. A. Voegell (M), Port-au-Prince.
- Harrisburg (Pa.): J. Thomas Heistand, Harrisburg; Earl M. Honaman (S), Williamsport.
- Honolulu: Harry S. Kennedy (M).
- Idaho: Norman L. Foote, Boise.
- Indianapolis: Richard A. Kirchhoffer, John P. Craine (C).
- Iowa: Gordon V. Smith, Des Moines.
- Kansas: Goodrich F. Fenner, Edward C. Turner (C), Topeka.
- Kentucky: C. Gresham Marmion, Jr., Louisville.
- Lexington (Ky.): William R. Moody.
- Liberia: Bravid W. Harris (M), Monrovia.
- Long Island: James P. DeWolfe, Jonathan G. Sherman (S), Garden City, N. Y.
- Los Angeles: Francis E. I. Bloy, Donald J. Campbell (S).
- Louisiana: Girault M. Jones, New Orleans; Iveson B. Noland (S), Alexandria.
- Maine: Oliver L. Loring, Portland.
- Maryland: Noble C. Powell, Harry L. Doll, (C), Baltimore.
- Massachusetts: Anson Phelps Stokes, Jr., Boston, Frederic C. Lawrence (S).
- Mexico: José G. Saucedo (M), Mexico City.
- Michigan: Richard S. Emrich, Archie H. Crowley (S), Detroit.
- Milwaukee: Donald H. V. Hallock.
- Minnesota: Hamilton H. Kellogg, Philip F. McNairy (S), Minneapolis.
- Mississippi: Duncan M. Gray, Jackson.
- Missouri: Arthur C. Lichtenberger, St. Louis.
- Montana: Chandler W. Sterling, Helena.
- Nebraska: Howard R. Brinker, Omaha.
- Nevada: William F. Lewis (M), Reno.
- New Hampshire: Charles F. Hall, Concord.
- New Jersey: Alfred L. Banyard, Trenton.
- New Mexico and Southwest Texas: Charles J. Kinsolving III, Albuquerque, N. Mex.
- New York: Horace W. B. Donegan, Charles F. Boynton (S), New York City.
- Newark (N. J.): Leland Stark, Donald MacAdie (S).
- North Carolina: Edwin A. Penick, Raleigh; Richard H. Baker (C), Greensboro.
- North Dakota: Richard Emery (M), Fargo.
- North Texas: George H. Quarterman (M), Amarillo.
- Northern Indiana: Reginald Mallett, South Bend.
- Northern Michigan: Herman R. Page, Menominee.
- Ohio: Nelson M. Burroughs, Cleveland.
- Oklahoma: Chilton Powell, Oklahoma City.
- Olympia (Wash.): Stephen F. Bayne, Jr., Seattle.
- Oregon: James W. F. Carman, Portland.
- Panama Canal Zone: Reginald H. Gooden (M), Ancon.
- Pennsylvania: Oliver J. Hart, J. Gillespie Armstrong (S), Philadelphia.
- Philippines: Lyman C. Ogilby, Manila.
- Pittsburgh: Austin Pardue, William S. Thomas (S).
- Puerto Rico: Albert E. Swift (M), Santurce.
- Quincy (Ill.): William Lickfield.
- Rhode Island: John S. Higgins, Providence, R. I.
- Rochester (N. Y.): Dudley S. Stark.
- Sacramento (Calif.): Clarence R. Haden, Jr.
- Salina (Kans.): Arnold M. Lewis (M).
- San Joaquin (Calif.): Sumner F. D. Walters (M), Stockton.

South Carolina: Thomas N. Carruthers, Charleston.
 South Dakota: Conrad H. Gesner (M), Sioux Falls.
 South Florida: Henry I. Louttit, Winter Park, William F. Moses (S).
 Southern Brazil: Egmont M. Krischke (M), Porto Alegre.
 Southern Ohio: Henry W. Hobson, Roger W. Blanchard (C), Cincinnati.
 Southern Virginia: George P. Gunn, David S. Rose (S), Norfolk.
 Southwestern Brazil: Plinio L. Simões (M), Santa Maria.
 Southwestern Virginia: William H. Marmon, Roanoke.
 Spokane (Wash.): Russell S. Hubbard (M).
 Springfield (Ill.): Charles A. Clough.
 Tennessee: Theodore N. Barth, Memphis; John Vander Horst (S), Chattanooga.
 Texas: John E. Hines, Houston; James P. Clements (S), Austin; Percy Goddard (S), Tyler.

Upper Carolina: C. Alfred Cole, Columbia, S. C.
 Utah: Richard S. Watson (M), Salt Lake City.
 Vermont: Vedder Van Dyck, Burlington.
 Virginia: Frederick D. Goodwin, Robert F. Gibson (C), Richmond.
 Washington (D. C.): Angus Dun.
 West Missouri: Edward R. Welles, Grandview.
 West Texas: Everett H. Jones, R. Earl Dicus (S), San Antonio.
 West Virginia: Wilburn C. Campbell, Charleston.
 Western Massachusetts: Robert M. Hatch, Springfield.
 Western Michigan: Dudley B. McNeill, Grand Rapids.
 Western New York: Lauriston L. Scaife, Buffalo.
 Western North Carolina: M. George Henry, Asheville, N. C.
 Wyoming: James W. Hunter (M), Laramie.

Bishops of The Methodist Church

Source: Methodist Information, New York City.

President: Bishop G. Bromley Oxnam, Washington, D. C. President-designate: Bishop Marvin A. Franklin, Jackson, Miss. (to take office April 16, 1959). Secretary: Bishop Roy H. Short, 201 Eighth Ave. So., Nashville, Tenn.

Hobart Amstutz; Singapore, Malaya.
 Sante Uberto Barbieri; Buenos Aires.
 Newell S. Booth; Elisabethville, Bel. Congo.
 J. W. E. Bowen; Atlanta, Ga.
 John W. Branscomb; Jacksonville, Fla.
 Charles W. Brashares; Chicago, Ill.
 W. Y. Chen, China.
 Matthew W. Clair, Jr.; St. Louis, Mo.
 D. Stanley Coors; St. Paul, Minn.
 Fred P. Corson; Philadelphia, Pa.
 Dana Dawson; Topeka, Kans.
 Ralph E. Dodge; Rusape, Southern Rhodesia.
 F. Gerald Ensley; Des Moines, Iowa.
 Eugene M. Frank; St. Louis, Mo.
 Marvin A. Franklin; Jackson, Miss.
 Paul N. Garber; Richmond, Va.
 A. Raymond Grant; Portland, Oreg.
 Odd Hagen; Stockholm, Sweden.
 Nolan B. Harmon; Charlotte, N. C.
 Bachman G. Hodge; Birmingham, Ala.
 Gerald Kennedy; Los Angeles, Calif.
 Willis J. King; New Orleans, La.
 W. Earl Ledden; Syracuse, N. Y.
 John Wesley Lord; Boston, Mass.
 Edgar A. Love; Baltimore, Md.
 Paul E. Martin; Little Rock, Ark.

William C. Martin; Dallas, Tex.
 Shot K. Mondol; Delhi, India.
 Arthur J. Moore; Atlanta, Ga.
 Frederick B. Newell; New York, N. Y.
 H. Clifford Northcott; Madison, Wis.
 G. Bromley Oxnam; Washington, D. C.
 Glenn R. Phillips; Denver, Colo.
 Richard C. Raines; Indianapolis, Ind.
 Marshall R. Reed; Detroit, Mich.
 Clement D. Rokey; Lahore, Pakistan.
 Julio Manuel Sabanes; Santiago, Chile.
 Roy H. Short; Nashville, Tenn.
 Ferdinand Sigg, Zürich, Switzerland.
 Mangal Singh; Bombay, India.
 A. Frank Smith; Houston, Tex.
 W. Angie Smith; Oklahoma City, Okla.
 John A. Subhan; Hyderabad, India.
 Gabriel Sundaram; Lucknow, India.
 Prince Albert Taylor; Monrovia, Liberia.
 Donald H. Tippet; San Francisco, Calif.
 José Valencia; Manila, Philippines.
 Edwin E. Voigt; Aberdeen, S. Dak.
 Ralph A. Ward; Hong Kong.
 William T. Watkins; Louisville, Ky.
 H. Bascom Watts; Lincoln, Nebr.
 Hazen G. Werner; Columbus, Ohio.
 Lloyd C. Wicke; Pittsburgh, Pa.
 Friedrich Wunderlich; Frankfurt, Germany.

Roman Catholic Hierarchy of the U. S.

Source: National Catholic Welfare Conference, Washington, D. C.

(Note: A—Auxiliary; C—Coadjutor. Archbishops are shown in boldface type, Bishops in lightface. An Archbishop heading a diocese is called an "Archbishop ad Personam"; i.e., he bears the personal title of Archbishop. The Apostolic Delegate to the U. S. is Archbishop Amleto Giovanni Cicognani.)

Archdioceses

- Baltimore, Md.: **Francis P. Keough**; **Jerome D. Sebastian** (A).
Boston, Mass.: **Richard J. Cushing**; **Eric F. MacKenzie** (A); **Jeremiah E. Minihan** (A).
Chicago, Ill.: **Albert Gregory Meyer**; **Bernard J. Sheil** (A); **Wm. D. O'Brien** (A); **Raymond P. Hillinger** (A).
Cincinnati, Ohio: **Karl J. Alter**; **Paul F. Leibold** (A).
Denver, Colo.: **Urban J. Vehr**.
Detroit, Mich.: **Edward Cardinal Mooney**; **A. M. Zaleski** (A); **H. E. Donnelly** (A); **J. A. Donovan** (A).
Dubuque, Iowa: **Leo Binz**; **George J. Biskup** (A).
Hartford, Conn.: **Henry J. O'Brien**; **John F. Hackett** (A).
Indianapolis, Ind.: **Paul C. Schulte**.
Kansas City, Kans.: **Edward J. Hunkeler**.
Los Angeles, Calif.: **James Francis Cardinal McIntyre**; **Timothy Manning** (A); **Alden J. Bell** (A).
Louisville, Ky.: **John A. Floersch**; **Charles G. Maloney** (A).
Milwaukee, Wis.: (Vacant); **Roman R. Atkielski** (A).
Newark, N. J.: **Thomas A. Boland**; **Martin W. Stanton** (A); **Walter Curtis** (A).
New Orleans, La.: **Joseph F. Rummel**; **L. Abel Caillouet** (A).
New York, N. Y.: **Francis Cardinal Spellman**; **Stephen J. Donahue** (A); **Joseph P. Donahue** (A); **Joseph F. Flannelly** (A); **Fulton J. Sheen** (A); **Edward V. Dargin** (A); **Joseph M. Pernicone** (A); **Raymond A. Lane**; **Paul Yu Pin**; **James H. Griffith** (A); **William R. Arnold** (A); **Philip J. Furlong** (A).
Omaha, Nebr.: **Gerald T. Bergan**.
Philadelphia, Pa.: **John F. O'Hara, C.S.C.**; **Joseph C. McCormick** (A); **Joseph McShea** (A); **Joseph Mary Yuen Ching Ping** (A).
Portland, Oreg.: **Edward D. Howard**.
St. Louis, Mo.: **Joseph E. Ritter**; **Leo C. Byrne** (A); **Glennon P. Flavin** (A).
St. Paul, Minn.: **William O. Brady**.
San Antonio, Tex.: **Robert E. Lucey**; **Stephen A. Leven** (A).
San Francisco, Calif.: **John J. Mitty**; **Hugh A. Donohoe** (A); **Merlin J. Guilfoyle** (A).
Santa Fe, N. Mex.: **Edwin V. Byrne**.
Seattle, Wash.: **Thomas A. Connolly**; **Thomas E. Gill** (A).
Washington, D. C.: **Patrick A. O'Boyle**; **John M. McNamara** (A); **Philip M. Hannan** (A); **Michael J. Keyes, S.M.**
- Albany, N. Y.: **William A. Scully**; **Edward J. Maginn** (A).
Alexandria, La.: **Charles P. Greco**.
Altoona-Johnstown, Pa.: **Howard J. Carroll**.
Amarillo, Tex.: **John L. Morkovsky**.
Atlanta, Ga.: **Francis E. Hyland**.
Austin, Tex.: **Louis J. Reicher**.
Bahamas (Vicariate): **Paul L. Hagerty, O.S.B.**, Vicar Apostolic.
Baker City, Oreg.: **Francis P. Leipzig**.
Belleville, Ill.: **Albert R. Zuroweste**.
Bismarck, N. Dak.: **Hilary B. Hacker**.
Boise, Idaho: **James J. Byrne**.
Bridgeport, Conn.: **Lawrence J. Shehan**.
Brooklyn, N. Y.: **Bryan J. McEntegart**; **J. J. Bordman** (A); **Edmund J. Reilly** (A).
Buffalo, N. Y.: **Joseph A. Burke**; **Leo R. Smith** (A).
Burlington, Vt.: **R. F. Joyce**.
Camden, N. J.: **Justin McCarthy**.
Caroline-Marshall Islands (vicariate): **Vincent I. Kennally**.
Charleston, S. C.: (Vacant).
Cheyenne, Wyo.: **Hubert M. Newell**.
Cleveland, Ohio: **Edward F. Hoban**; **Floyd L. Begin** (A); **John J. Krol** (A).
Columbus, Ohio: **Clarence G. Issenmann**; **Edward G. Hettinger** (A).
Corpus Christi, Tex.: **Mariano S. Garriga**; **Adolph Marx** (A).
Covington, Ky.: **William T. Mulloy**.
Crookston, Minn.: **Francis J. Schenk**.
Dallas-Ft. Worth, Tex.: **Thomas K. Gorman**; **Augustine Dangelmayr** (A).
Davenport, Iowa: **Ralph L. Hayes**.
Des Moines, Iowa: **Edward C. Daly, O.P.**.
Dodge City, Kans.: **John B. Franz**.
Duluth, Minn.: **Thomas A. Welch**; **Lawrence A. Glenn** (A).
El Paso, Tex.: **Sidney M. Metzger**.
Erie, Pa.: **John M. Gannon**; **Edward P. McManaman** (A).
Evansville, Ind.: **Henry J. Grimmelsman**.
Fall River, Mass.: **James L. Connolly**.
 Fargo, N. Dak.: **Aloysius J. Muench**; **Leo F. Dworschak** (A).
Fort Wayne, Ind.: **Leo A. Pursley**.
Gallup, N. Mex.: **Bernard T. Espelage, O.F.M.**.
Galveston, Tex.: **Wendelin J. Nold**.
Gary, Ind.: **A. G. Grutka**.
Grand Island, Nebr.: **John L. Paschang**.
Grand Rapids, Mich.: **Allen J. Babcock**.
Great Falls, Mont.: **William J. Condon**.
Green Bay, Wis.: **Stanislaus V. Bona**; **John B. Grellinger** (A).
Greensburg, Pa.: **Hugh L. Lamb**.
Guam (vicariate): **Apollinaris W. Baumgartner, O.F.M. Cap.**, Vicar Apostolic.
Harrisburg, Pa.: **George L. Leech**; **Lawrence F. Schott** (A).

Dioceses

- Alaska (vicariate): **Francis D. Gleeson, S.J.**, Vicar Apostolic.

- Helena, Mont.: Joseph M. Gilmore.
 Honolulu: J. J. Sweeney; J. J. Scanlan (A).
 Jamaica (Vicariate): John J. McEleney,
 S.J., Vicar Apostolic.
 Jefferson City, Mo.: Joseph H. Marling,
 C.P.P.S.
 Joliet, Ill.: Martin D. McNamara.
 Juneau, Alaska: Dermot O'Flanagan.
 Kansas City-St. Joseph, Missouri: John P.
 Cody.
 La Crosse, Wis.: John P. Treacy.
 Lafayette, Ind.: John J. Carberry.
 Lafayette, La.: Maurice Schexnayder.
 Lansing, Mich.: Joseph H. Albers.
 Lincoln, Nebr.: Jas. V. Casey.
 Little Rock, Ark.: Albert L. Fletcher.
 Madison, Wis.: William P. O'Connor.
 Manchester, N. H.: Matthew F. Brady.
 Marquette, Mich.: Thomas L. Noa.
 Miami, Fla.: Coleman F. Carroll.
 Mobile-Birmingham, Ala.: T. J. Toolen;
 Joseph A. Durick (A).
 Monterey-Fresno, Calif.: Aloysius J. Will-
 inger, C.Ss.R.; Harry A. Clinch (A).
 Nashville, Tenn.: William L. Adrian.
 Natchez, Miss.: Richard O. Gerow; Joseph
 Brumini (A).
 New Ulm, Minn.: Alphonse Schadweiler.
 Norwich, Conn.: Bernard J. Flanagan.
 Ogdensburg, N. Y.: J. J. Navagh.
 Oklahoma City-Tulsa, Okla.: Victor J.
 Reed.
 Owensboro, Ky.: Francis R. Cotton.
 Paterson, N. J.: James A. McNulty.
 Peoria, Ill.: William E. Cousins.
 Pittsburgh, Pa.: John F. Dearden.
 Ponce, P. R.: James E. McManus, C.Ss.R.
 Portland, Maine: Daniel J. Feeney.
 Providence, R. I.: Russell J. McVinney.
 Pueblo, Colo.: Joseph C. Willging.
 Raleigh, N. C.: Vincent S. Waters.
 Rapid City, S. Dak.: William T. McCarty,
 C.Ss.R.
 Reno, Nev.: Robert J. Dwyer.
 Richmond, Va.: John J. Russell; Joseph H.
 Hodges (A).
 Rochester, N. Y.: James E. Kearney; Law-
 rence B. Casey (A).
 Rockford, Ill.: Lorus T. Lane.
 Rockville Center, N. Y.: Walter P. Kellen-
 berg.
 Sacramento, Calif.: Joseph T. McGucken.
 Saginaw, Mich.: Stephen S. Woznicki.
 St. Augustine, Fla.: Joseph P. Hurley.
 St. Cloud, Minn.: Peter W. Bartholome.
 Salina, Kans.: Frederick W. Freking.
 Salt Lake City, Utah: Duane G. Hunt;
 J. Lennox Federal (A).
 San Diego, Calif.: Charles F. Buddy; Rich-
 ard H. Ackerman (A).
 San Juan, P. R.: James P. Davis.
 Savannah, Ga.: Gerald P. O'Hara; Thomas
 J. McDonough (A).
 Scranton, Pa.: Jerome D. Hannan; Henry T.
 Klonowski (A).
 Sioux City, Iowa: Joseph M. Mueller.
 Sioux Falls, S. Dak.: Lambert A. Hoch.
 Spokane, Wash.: Bernard Joseph Topel.
 Springfield, Ill.: William A. O'Connor.
 Springfield, Mass.: Christopher J. Weldon.
 Springfield-Cape Girardeau, Mo.: Charles
 M. Helmsing.
 Steubenville, Ohio: John K. Mussio.
 Superior, Wis.: Joseph J. Annabring.
 Syracuse, N. Y.: Walter A. Foery; David F.
 Cunningham (A).
 Toledo, Ohio: George J. Rehrling.
 Trenton, N. J.: George W. Ahr.
 Tucson, Ariz.: Daniel J. Gercke; Francis J.
 Green (A).
 Wheeling, W. Va.: John J. Swint; Thomas
 J. McDonnell (C).
 Wichita, Kans.: Mark K. Carroll.
 Wilmington, Del.: Michael Hyle (C).
 Winona, Minn.: Edward A. Fitzgerald.
 Worcester, Mass.: John J. Wright.
 Yakima, Wash.: Joseph P. Dougherty.
 Youngstown, Ohio: Emmet M. Walsh.
 Military Ordinariate: Francis Cardinal
 Spellman, Military Vicar; William Ar-
 nold, Military Delegate; Phillip J. Fur-
 long (A).
 Belmont, N. C. (Abbacy Nullius): Vincent
 G. Taylor, O.S.B. (Abbot).
 Philadelphia, Pa. (Byzantine Rite): Con-
 stantine Bohachevsky; Joseph Schmon-
 dluk (A).
 Pittsburgh, Pa. (Greek Rite): Nicholas T.
 Elko; Stephen Kocisko (A).
 Stamford, Conn. (Ukrainian Greek Catho-
 lic Diocese): Ambrose Senyshyn.

The College of Cardinals

Cardinal Bishops

Year of creation	Name	Office or dignity	Nationality
1936	Eugene Tisserant	Bishop of Ostia, Porto, and Santa Rufina; Dean of the Sa- cred College of Cardinals; Secre- tary of the Sacred Congregation for the Oriental Church; Prefect of the Sacred Congregation of Ceremonies	French

1946	Clemente Micara	Bishop of Velletri; Vicar General of Rome	Italian
1937	Giuseppe Pizzardo	Bishop of Albano; Secretary of the Supreme Sacred Congregation of the Holy Office; Prefect of the Sacred Congregation of Seminaries and Universities	Italian
1937	Adeodato Giovanni Piazza	Bishop of Sabina; Secretary of the Sacred Consistorial Congregation	Italian
1946	Benedetto Aloisi Masella	Bishop of Palestrina; Prefect of the Sacred Congregation of the Sacraments; Archpriest of St. John Lateran's Basilica	Italian
1933	Federico Tedeschini	Bishop of Frascati; Archpriest of St. Peter's Basilica; Prefect of the Sacred Congregation of the Basilica of St. Peter; Apostolic Datary	Italian

Cardinal Priests

1927	Joseph Ernest Van Roey	Archbishop of Malines	Belgian
1929	Emanuel Goncalves Cerejeira	Patriarch of Lisbon	Portuguese
1930	Achilles Lienart	Bishop of Lille	French
1933	Pietro Fumasoni-Biondi	Prefect of the Sacred Congregation for the Propagation of the Faith	Italian
1933	Maurilio Fossati	Archbishop of Turin	Italian
1933	Elia dalla Costa	Archbishop of Florence	Italian
1935	Ignazio Tappouni	Syrian Patriarch of Antioch	Iraqian
1935	Santiago Copello	Archbishop of Buenos Aires	Argentine
1937	Pierre Marie Gerlier	Archbishop of Lyon	French
1946	Gregory Peter XV Agagianian	Patriarch of Cilicia of the Armenians	Trans-caucasian
1946	Edward Mooney	Archbishop of Detroit	American
1946	James McGuigan	Archbishop of Toronto	Canadian
1946	Emile Roques	Archbishop of Rennes	French
1946	Carlo Carmelo de Vasconcellos Mota	Archbishop of São Paulo	Brazilian
1946	Norman Gilroy	Archbishop of Sydney	Australian
1946	Francis J. Spellman	Archbishop of New York	American
1946	José María Caro Rodríguez	Archbishop of Santiago	Chilean
1946	Teodosio Clemente de Gouveia	Archbishop of Lourenço Marques, Mozambique	Portuguese
1946	Jaime de Barros Camara	Archbishop of Rio de Janeiro; Ordinary for Oriental Catholics in Brazil	Brazilian
1946	Enrique Pla y Deniel	Archbishop of Toledo and Primate of Spain	Spanish
1946	Manuel Arteaga y Betancourt	Archbishop of Havana	Cuban
1946	Joseph Frings	Archbishop of Cologne	German
1946	Jozsef Mindszenty	Archbishop of Esztergom and Primate of Hungary	Hungarian
1946	Ernesto Ruffini	Archbishop of Palermo; Apostolic Administrator of the Byzantium Rite Eparchy of Piani Del Greci	Italian
1946	Antonio Caggiano	Bishop of Rosario	Argentine
1946	Thomas Tien, S. V. D.	Archbishop of Peiping	Chinese
1953	Celso Costantini	Secretary of the Sacred Congregation for the Propagation of the Faith; Chancellor of the Holy Roman Church	Italian
1953	Augusto Alvaro da Silva	Archbishop of San Salvador in Bala	Brazilian

1953	Gaetano Cicognani	Prefect of Sacred Congregation of Rites; Pro-Prefect of the Apostolic Signature	Italian
1953	Angelo G. Roncalli	Patriarch of Venice	Italian
1953	Valerio Valeri	Prefect of Sacred Congregation of Affairs of Religious	Italian
1953	Pietro Ciriaci	Prefect of Sacred Congregation of the Council	Italian
1953	Maurice Feltin	Archbishop of Paris	French
1953	Marcello Mimmi	Archbishop of Naples	Italian
1953	Carlos Maria de la Torre	Archbishop of Quito	Ecuadorian
1953	Aloysius Stepinac	Archbishop of Zagreb	Yugoslavian
1953	Georges F. X. M. Grente	Archbishop <i>ad personam</i> of Le Mans	French
1953	Giuseppe Siri	Archbishop of Genoa	Italian
1953	John F. D'Alton	Archbishop of Armagh, Primate of all Ireland	Irish
1953	James Francis McIntyre	Archbishop of Los Angeles	American
1953	Giacomo Lercaro	Archbishop of Bologna	Italian
1953	Stefan Wyszyński	Archbishop of Gniezno and Warsaw	Polish
1953	Benjamin de Arriba y Castro	Archbishop of Tarragona	Spanish
1953	Fernando Quiroga y Palacios	Archbishop of Santiago di Compostela	Spanish
1953	Paul Émile Leger, S.S.	Archbishop of Montreal	Canadian
1953	Crisanto Luque	Archbishop of Bogotá, Primate of Colombia	Colombian
1953	Valerian Gracias	Archbishop of Bombay	Indian
1953	Josef Wendel	Archbishop of Munich and Freising	German

Cardinal Deacons

1935	Nicola Canali	Grand Penitentiary; President of the Commission charged with the Administration of Vatican City	Italian
1953	Alfredo Ottaviani	Pro-Secretary of the Supreme Congregation of the Holy Office	Italian

Antipopes

Antipopes were those who falsely claimed Papal Sovereignty. The dates and, in some cases, Roman numerals after the names account for occasional discrepancies in the succession of the Popes.

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
St. Hippolytus	Rome	217	235	Clement III	Parma	1080	1100
Novatian	Rome	251	...	Theodoric	.....	....	1100
Felix II	Rome	355	365	Albert	.....	....	1102
Ursinus	.....	366	367	Sylvester IV	Rome	1105	1117
Eulalius	.....	418	419	Gregory VIII	France	1118	1121
Lawrence	.....	498	501	Celestine II	Rome	....	1124
Dioscorus	Alexandria	530	530	Anacletus II	Rome	1130	1138
Theodore	.....	...	687	Victor IV	.....	1138	1139
Paschal	.....	...	687	Victor IV*	Montecelio	1159	1164
Constantine	Nepi	767	769	Paschal III	.....	1164	1168
Philip	.....	768	768	Callistus III	Arezzo	1168	1178
John	.....	...	844	Innocent III	Sezze	1179	1181
Anastasius	.....	855	855	Nicholas V	Corvaro	1328	1330
Christopher	Rome	903	904	Clement VII	.....	1378	1394
Boniface VII	Rome	974	974	Benedict XIII	Aragon	1394	1422
Boniface VII (2nd time)	.....	984	985	Alexander V	Crete	1409	1410
John XVI	Rossano	997	998	John XXIII	Naples	1410	1415
Gregory	.....	...	1012	Felix V	.....	1439	1449
Benedict X	Rome	1058	1059	* Did not recognize his predecessor of 1138, who, only two months after claiming the Papacy, submitted to the rightful Pope, Innocent II.			
Honorius II	Verona	1061	1072				

Roman Catholic Pontiffs

Source for Catholic information: The National Catholic Almanac.

St. Peter, of Bethsaida in Galilee, Prince of the Apostles, was the first Pope. He resided first in Antioch and then for twenty-five years in Rome, where he suffered martyrdom in 64 or 67 of the modern era. He was followed by St. Linus.

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
St. Linus	Tuscia	67	76	Sabinianus	Tuscia	604	606
St. Anacletus (Cletus)	Rome	76	88	Boniface III	Rome	607	607
St. Clement	Rome	88	97	St. Boniface IV	Marsi	608	615
St. Evaristus	Greece	97	105	St. Deusdedit	Rome	615	618
St. Alexander I	Rome	105	115	(Adeodatus I)	/		
St. Sixtus I	Rome	115	125	Boniface V	Naples	619	625
St. Telesphorus	Greece	125	136	Honorius I	Campania	625	638
St. Hyginus	Greece	136	140	Severinus	Rome	640	640
St. Pius I	Aquileia	140	155	John IV	Dalmatia	640	642
St. Anicetus	Syria	155	166	Theodore I	Greece	642	649
St. Soter	Campania	166	175	St. Martin I	Todi	649	655
St. Eleutherius	Epirus	175	189	St. Eugenius I	Rome	654	657
St. Victor I	Africa	189	199	St. Vitian	Segni	657	672
St. Zephyrinus	Rome	199	217	Adeodatus II	Rome	672	676
St. Callistus I	Rome	217	222	Donus	Rome	676	678
St. Urban I	Rome	222	230	St. Agatho	Sicily	678	681
St. Pontian	Rome	230	235	St. Leo II	Sicily	682	683
St. Anterus	Greece	235	236	St. Benedict II	Rome	684	685
St. Fabian	Rome	236	250	John V	Syria	685	686
St. Cornelius	Rome	251	253	Conon	Unknown	686	687
St. Lucius I	Rome	253	254	St. Sergius I	Syria	687	701
St. Stephen I	Rome	254	257	John VI	Greece	701	705
St. Sixtus II	Greece	257	258	John VII	Greece	705	707
St. Dionysius	Unknown	259	268	Sisinnius	Syria	708	708
St. Felix I	Rome	269	274	Constantine	Syria	708	715
St. Eutychian	Luni	275	283	St. Gregory II	Rome	715	731
St. Calixtus	Dalmatia	283	296	St. Gregory III	Syria	731	741
St. Marcellinus	Rome	296	304	St. Zachary	Greece	741	752
St. Marcellus I	Rome	308	309	Stephen II	Rome	752	752
St. Eusebius	Greece	309	309	Stephen III	Rome	752	757
St. Melchisedes	Africa	311	314	St. Paul I	Rome	757	767
St. Sylvester I	Rome	314	335	Stephen IV	Sicily	768	772
St. Marcus	Rome	336	336	Adrian I	Rome	772	795
St. Julius I	Rome	337	352	St. Leo III	Rome	795	816
St. Liberius	Rome	352	366	Stephen V	Rome	816	817
St. Damasus I	Spain	366	384	St. Paschal I	Rome	817	824
St. Siricius	Rome	384	399	Eugenius II	Rome	824	827
St. Anastasius I	Rome	399	401	Valentine	Rome	827	827
St. Innocent I	Albano	401	417	Gregory IV	Rome	827	844
St. Zozimus	Greece	417	418	Sergius II	Rome	844	847
St. Boniface I	Rome	418	422	St. Leo IV	Rome	847	855
St. Celestine I	Campania	422	432	Benedict III	Rome	855	858
St. Sixtus III	Rome	432	440	St. Nicholas	Rome	858	867
St. Leo I (the Great)	Tuscia	440	461	Adrian II	Rome	867	872
St. Hilary	Sardo	461	468	John VIII	Rome	872	882
St. Simplicius	Tivoli	468	483	Marinus I	Gallese	882	884
St. Felix III (II)	Rome	483	492	St. Adrian III	Rome	884	885
St. Gelasius I	Africa	492	496	Stephen VI	Rome	885	891
Anastasius II	Rome	496	498	Formosus	Portus	891	896
St. Symmachus	Sardo	498	514	Boniface VI	Rome	896	896
St. Hormisdas	Frosinone	514	523	Stephen VII	Rome	896	897
St. John I	Tuscia	523	526	Romanus	Gallese	897	897
St. Felix IV (III)	Sannio	526	530	Theodore II	Rome	897	897
Boniface II	Rome	530	532	John IX	Tivoli	898	900
John II	Rome	533	535	Benedict IV	Rome	900	903
St. Agapitus I	Rome	535	536	Leo V	Ardea	903	903
St. Silverius	Campania	536	537	Sergius III	Rome	904	911
Vigilius	Rome	537	555	Anastasius III	Rome	911	913
Pelagius I	Rome	556	561	Landus	Sabina	913	914
John III	Rome	561	574	John X	Tossignano	914	928
Benedict I	Rome	575	579	Leo VI	Rome	928	928
Pelagius II	Rome	579	590	Stephen VIII	Rome	928	931
St. Gregory I (the Great)	Rome	590	604	John XI	Rome	931	935
				Leo VII	Rome	936	939
				Stephen IX	Rome	939	942
				Marinus II	Rome	942	946

Name	Birthplace	Access.	End of reign	Name	Birthplace	Access.	End of reign
Agapitus II	Rome	946	955	Bl. Benedict XI	Treviso	1303	1304
John XII	Tusculum	955	964	Clement V	France	1305	1314
Leo VIII	Rome	963	965	John XXII	Cahors	1316	1334
Benedict V	Rome	964	966	Benedict XII	France	1334	1342
John XIII	Rome	965	972	Clement VI	France	1342	1352
Benedict VI	Rome	973	974	Innocent VI	France	1352	1362
Benedict VII	Rome	974	983	Bl. Urban V	France	1362	1370
John XIV	Pavia	983	984	Gregory XI	France	1370	1378
John XV	Rome	985	996	Urban VI	Naples	1378	1389
Gregory V	Saxony	996	999	Boniface IX	Naples	1389	1404
Sylvester II	Alvernia	999	1003	Innocent VII	Sulmona	1404	1406
John XVII	Rome	1003	1003	Gregory XII	Venetia	1406	1415
John XVIII	Rome	1004	1009	Martin V	Rome	1417	1431
Sergius IV	Rome	1009	1012	Eugene IV	Venetia	1431	1447
Benedict VIII	Tusculum	1012	1024	Nicholas V	Sarzana	1447	1455
John XIX	Tusculum	1024	1032	Callistus III	Valencia	1455	1458
Benedict IX*	Tusculum	1032	1044	Pius II	Siena	1458	1464
Sylvester III	Rome	1045	1045	Paul II	Venetia	1464	1471
Benedict IX	....	1045	1045	Sixtus IV	Savona	1471	1484
(2nd time)				Innocent VIII	Genoa	1484	1492
Gregory VI	Rome	1045	1046	Alexander VI	Valencia	1492	1503
Clement II	Saxony	1046	1047	Pius III	Siena	1503	1503
Benedict IX	....	1047	1048	Julius II	Savona	1503	1513
(3rd time)				Leo X	Florence	1513	1521
Damasus II	Bavaria	1048	1048	Adrian VI	Utrecht	1522	1523
St. Leo IX	Egisheim-Dagsburg	1049	1054	Clement VII	Florence	1523	1534
Victor II	Dollnstein-Hirschberg	1055	1057	Paul III	Rome	1534	1549
Stephen X	Lorraine	1057	1058	Julius III	Rome	1550	1555
Nicholas II	Burgundy	1059	1061	Marcellus II	Montepulciano	1555	1555
Alexander II	Milan	1061	1073	Paul IV	Naples	1555	1559
St. Gregory VII	Tuscia	1073	1085	Pius IV	Milan	1559	1565
Bl. Victor III	Benevento	1086	1087	St. Pius V	Bosco	1566	1572
Bl. Urban II	France	1088	1099	Gregory XIII	Bologna	1572	1585
Paschal II	Ravenna	1099	1118	Sixtus V	Grottammare	1585	1590
Gelasius II	Gaeta	1118	1119	Urban VII	Rome	1590	1590
Callistus II	Burgundy	1119	1124	Gregory XIV	Cremona	1590	1591
Honorius II	Fiagnano	1124	1130	Innocent IX	Bologna	1591	1591
Innocent II	Rome	1130	1143	Clement VIII	Florence	1592	1605
Celestine II	Città di Castello	1143	1144	Leo XI	Florence	1605	1605
Lucius II	Bologna	1144	1145	Paul V	Rome	1605	1621
Bl. Eugene III	Pisa	1145	1153	Gregory XV	Bologna	1621	1623
Anastasius IV	Rome	1153	1154	Urban VIII	Florence	1623	1644
Adrian IV	England	1154	1159	Innocent X	Rome	1644	1655
Alexander III	Siena	1159	1181	Alexander VII	Siena	1655	1667
Lucius III	Lucca	1181	1185	Clement IX	Pistola	1667	1669
Urban III	Milan	1185	1187	Clement X	Rome	1670	1676
Gregory VIII	Benevento	1187	1187	Innocent XI	Como	1676	1689
Clement III	Rome	1187	1191	Alexander VIII	Venetia	1689	1691
Celestine III	Rome	1191	1198	Innocent XII	Naples	1691	1700
Innocent III	Anagni	1198	1216	Clement XI	Urbino	1700	1721
Honorius III	Rome	1216	1227	Innocent XIII	Rome	1721	1724
Gregory IX	Anagni	1227	1241	Benedict XIII	Rome	1724	1730
Celestine IV	Milan	1241	1241	Clement XII	Florence	1730	1740
Innocent IV	Genoa	1243	1254	Benedict XIV	Bologna	1740	1758
Alexander IV	Anagni	1254	1261	Clement XIII	Venetia	1758	1769
Urban IV	Troyes	1261	1264	Clement XIV	Rimini	1769	1774
Clement IV	France	1265	1268	Pius VI	Cesena	1775	1799
Bl. Gregory X	Placenza	1271	1276	Pius VII	Cesena	1800	1823
Bl. Innocent V	Savoy	1276	1276	Leo XII	Fabriano	1823	1829
Adrian V	Genoa	1276	1276	Pius VIII	Cingoli	1829	1830
John XXI	Portugal	1276	1277	Gregory XVI	Belluno	1831	1846
Nicholas III	Rome	1277	1280	Pius IX	Senigallia	1846	1878
Martin IV	France	1281	1285	Leo XIII	Carpineto	1878	1903
Honorius IV	Rome	1285	1287	St. Pius X	Riese	1903	1914
Nicholas IV	Ascoli	1288	1292	Benedict XV	Genoa	1914	1922
St. Celestine V	Isernia	1294	1294	Pius XI	Desio	1922	1939
Boniface VIII	Anagni	1294	1303	Pius XII	Rome	1939	

* If the triple removal of Benedict IX was not valid, Sylvester III, Gregory VI and Clement II were antipopes.
 NOTE: This list of Popes, adapted from the *Annuario Pontificio*, is in accordance with the recent revisions made by Monsignor Mercati, Prefect of the Vatican's archives. All Popes before Sylvester I are listed as martyrs; other martyrs were: St. John I, St. Silverius and St. Martin I. The accession year is that during which the Pope was elected.

Archbishops of Canterbury

Sequence	Name	Created	Sequence	Name	Created
1	Augustine (consecrated Bishop 597)	601	50	Robert Winchelsea	1294
2	Laurentius	604	51	Walter Reynolds	1313
3	Mellitus	619	52	Simon Mepeham	1328
4	Justus	624	53	John de Stratford	1333
5	Honorius	627	54	Thomas Bradwardine	1349
6	Deusdedit	655	55	Simon Islip	1349
7	Theodorus	668	56	Simon Langham	1366
8	Beorhtweald	692	57	William Whittlesey	1368
9	Tatwine	731	58	Simon of Sudbury	1375
10	Nothelm	735	59	William Courtenay	1381
11	Cuthbeorht	740	60	Thomas Arundel	1396
12	Breguwine	761	61	Roger Walden	1398
13	Jaenbeorht	765	62	Thomas Arundel (restored)	1399
14	Æthelheard	793	63	Henry Chicheley	1414
15	Wulfred	805	64	John Stafford	1443
16	Feologild	832	65	John Kemp	1452
17	Ceolnoth	833	66	Thomas Bouchier	1454
18	Æthelred	870	67	John Morton	1486
19	Plegmund	890	68	Henry Dean	1501
20	Æthelhelm	914	69	William Warham	1503
21	Wulfhelm	923	70	Thomas Cranmer	1533
22	Oda	942	71	Reginald Pole	1556
23	Ælfsige	959	72	Matthew Parker	1559
24	Beorhtelm	959	73	Edmund Grindal	1576
25	Dunstan	959	74	John Whitgift	1583
26	Æthelgar	988	75	Richard Bancroft	1604
27	Sigeric Serio	990	76	George Abbot	1611
28	Ælfric	995	77	William Laud	1633
29	Ælfheah	1005	78	William Juxon	1660
30	Lyfing	1013	79	Gilbert Sheldon	1663
31	Æthelnoth	1020	80	William Sancroft	1678
32	Eadsige	1038	81	John Tillotson	1691
33	Robert (Champart) of Jumièges	1051	82	Thomas Tenison	1695
34	Stigand	1052	83	William Wake	1716
35	Lanfranc	1070	84	John Potter	1737
36	Anselm	1093	85	Thomas Herring	1747
37	Ralph d'Escures	1114	86	Matthew Hutton	1757
38	William de Corbeil	1123	87	Thomas Secker	1758
39	Theobald	1138	88	Frederick Cornwallis	1768
40	Thomas à Becket	1162	89	John Moore	1783
41	Richard (of Dover)	1174	90	Charles Manners-Sutton	1805
42	Baldwin	1185	91	William Howley	1828
43	Hubert Walter	1193	92	John Bird Sumner	1848
44	Stephen Langton	1207	93	Charles Thomas Longley	1862
45	Richard le Grant (of Wetharshed)	1229	94	Archibald Campbell Tait	1868
46	Edmund Rich	1234	95	Edward White Benson	1883
47	Boniface of Savoy	1245	96	Frederick Temple	1896
48	Robert Kilwardby	1273	97	Randall Thomas Davidson	1903
49	John Pecham (Peckham)	1279	98	Cosmo Gordon Lang	1928
			99	William Temple	1942
			100	Geoffrey Francis Fisher	1945

(NOTE: Anglicans consider the line of Archbishops unbroken from Augustine to the present day. Roman Catholics consider the office vacant since 1558, the death of Pole.)

History of the Christian Church in England

5th century	Arrival in England of Angles, Saxons and Jutes. Church isolated from Rome.	1646	Puritan rebellion. Presbyterianism becomes state religion.
597	Augustine sent to convert Saxons.	1660	Restoration. Power of Church of England restored under Charles II.
1534	Act of Supremacy makes king head of Church of England.	1739	John Wesley founds Methodism.
1554	Church again united with Rome under reign of Mary.	1829	Catholic emancipation.
1558	Church restored to Crown at accession of Elizabeth.	1833-45	Oxford Movement attempts to bring Church of England closer to ideals of ancient Church. This movement continues as important influence.
1611	King James version of Bible.		

Jewish Congregational and Rabbinical Organizations

Central Conference of American Rabbis: 40 W. 68th St., New York 23, N. Y.

Rabbinical Alliance of America: 154 Nassau St., New York 38, N. Y.

Rabbinical Assembly of America: 3080 Broadway, New York 27, N. Y.

Rabbinical Council of America, Inc.: 331 Madison Ave., New York 17, N. Y.

Synagogue Council of America: 110 W. 42nd St., New York 36, N. Y.

Union of American Hebrew Congregations: 838 Fifth Ave., New York 21, N. Y.

Union of Orthodox Rabbis of the U. S. and Canada: 132 Nassau St., New York 38, N. Y.

Union of Orthodox Jewish Congregations of America: 305 Bdwy., New York 7, N. Y.

United Synagogue of America: 3080 Broadway, New York 27, N. Y.

Religious and Secular Holidays, 1959

(Legal holidays falling on Sunday are observed on Monday)

NEW YEAR'S DAY—Thursday, Jan. 1—A legal holiday in all states and the District of Columbia, New Year's Day has its origin in Roman times, when sacrifices were offered to Janus, the two-faced Roman deity who looked back on the past and forward to the future.

EPIPHANY—Tuesday, Jan. 6—Falls the twelfth day after Christmas and commemorates the manifestation of Jesus as the Son of God, as represented by the adoration of the Magi, the baptism of Jesus, and the miracle of the wine at the marriage feast at Cana. Epiphany originally marked the beginning of the carnival season preceding Lent, and the evening (sometimes the eve) is known as Twelfth Night.

SHROVE TUESDAY—Feb. 10—Falls the day before Ash Wednesday and marks the end of the carnival season, which once began on Epiphany but is now usually celebrated the last three days before Lent. In France, the day is known as Mardi Gras (Fat Tuesday), and Mardi Gras celebrations are also held in several American cities, particularly in New Orleans. The day is sometimes called Pancake Tuesday by the English because of the need of using up fats which were prohibited during Lent.

ASH WEDNESDAY—Feb. 11—The first day of the Lenten season, which lasts forty days. Having its origin sometime before A.D. 1000, it is a day of public penance and is marked in the Roman Catholic Church by the burning of the palms blessed on the previous Palm Sunday. With his thumb, the priest then marks a cross upon the forehead of each worshipper. The Anglican Church and a few Protestant groups in the United States also celebrate the day, but generally without the use of ashes.

LINCOLN'S BIRTHDAY—Thursday, Feb. 12—A legal holiday in many states, this day was first formally observed in Washington, D. C., in 1866, when both houses of Congress gathered for a memorial address in honor of the late President.

ST. VALENTINE'S DAY—Saturday, Feb. 14—This day is the festival of two 3rd-century martyrs, both named St. Valentine. It is not known why this day is

associated with lovers. It may derive from an old pagan festival about this time of year, or it may have been inspired by the belief that birds mate on this day.

WASHINGTON'S BIRTHDAY—Sunday, Feb. 22—The birthday of George Washington is celebrated as a legal holiday in every state of the Union, the District of Columbia and all territories. The observance began in 1796.

ST. PATRICK'S DAY—Tuesday, March 17—St. Patrick, patron saint of Ireland, has been honored in America since the first days of the nation. There are many dinners and meetings and perhaps the most notable part of the observance is the annual St. Patrick's Day parade on Fifth Avenue in New York City.

PALM SUNDAY—March 22—Is observed the Sunday before Easter to commemorate the entry of Jesus into Jerusalem. The procession and the ceremonies introducing the benediction of palms probably had their origin in Jerusalem.

GOOD FRIDAY—March 27—This day commemorates the Crucifixion, which is retold during services from the Gospel according to St. John. A feature in Roman Catholic churches is the Liturgy of the Passion; there is no Consecration, the Host having been consecrated the previous day. The eating of hot cross buns on this day is said to have started in England.

EASTER SUNDAY—March 29—Observed in all Christian churches, Easter commemorates the Resurrection of Jesus. It is celebrated on the first Sunday after the full moon which occurs on or next after March 21 and is therefore celebrated between March 22 and April 25 inclusive. This date was fixed by the Council of Nicaea in 325.

FIRST DAY OF PASSOVER (Pesach)—Thursday, April 23 (Nisan 15)—The Feast of the Passover, also called the Feast of Unleavened Bread, commemorates the escape of the first-born of the Jews from the Angel of Death, who took from the Egyptians their first-born, thus fulfilling the prophecy of Moses. As the Jews fled Egypt, they ate unleavened bread, and

from that time the Jews have allowed no leavening in the houses during Passover, bread being replaced by matzoth.

ASCENSION DAY—Thursday, May 7—Took place in the presence of His apostles 40 days after the Resurrection of Jesus. It is traditionally held to have occurred on Mount Olivet in Bethany.

PENTECOST (Whitsunday)—May 17—This day commemorates the descent of the Holy Ghost upon the Apostles fifty days after the Resurrection. The sermon by the Apostle Peter, which led to the baptism of 3,000 who professed belief, originated the ceremonies that have since been followed. "Whitsunday" is believed to have come from "white Sunday" when, among the English, white robes were worn by those baptized on the day.

MEMORIAL DAY—Saturday, May 30—Also known as Decoration Day, Memorial Day is a legal holiday in most of the states and in the territories, and is also observed by the armed forces. In 1863, General John A. Logan, Commander in Chief of the Grand Army of the Republic, issued an order designating the day as one in which the graves of soldiers would be decorated. The holiday was originally devoted to honoring the memory of those who fell in the Civil War, but is now also dedicated to the memory of the dead of all wars.

FIRST DAY OF SHABUOTH (Hebrew Pentecost)—Friday, June 12 (Sivan 6)—This festival, sometimes called the Feast of Weeks, or of Harvest, or of the First Fruits, falls fifty days after Passover and originally celebrated the end of the seven-week grain harvesting season. In later tradition, it also celebrated the giving of the Law to Moses on Mt. Sinai, and both aspects have come down to the present.

FLAG DAY—Sunday, June 14—This day commemorates the adoption by the Continental Congress on June 14, 1777, of the Stars and Stripes as the U. S. flag. Although it is a legal holiday only in Pennsylvania, President Truman, on Aug. 3, 1949, signed a bill requesting the President to call for its observance each year by proclamation.

INDEPENDENCE DAY—Saturday, July 4—The day of the adoption of the Declaration of Independence in 1776, celebrated in all states and territories. The observance began in the next year in the city of Philadelphia.

LABOR DAY—Monday, Sept. 7—Observed the first Monday in September in all states and territories, Labor Day was first celebrated in New York in 1882 under the sponsorship of the Central Labor Union, following the suggestion of Peter J. McGuire, of the Knights of Labor, that the day be set aside in honor of labor.

FIRST DAY OF ROSH HASHANA (Jewish New Year)—Saturday, Oct. 3 (Tishri 1)—This day marks the beginning of the Jewish year 5720 and opens the Ten Days of Penitence closing with Yom Kippur.

YOM KIPPUR (Day of Atonement)—Monday, Oct. 12 (Tishri 10)—This day marks the end of the Ten Days of Penitence that began with Rosh Hashana and is the holiest day of the Jewish year. It is described in *Leviticus* as the "Sabbath of Sabbaths," and synagogue services begin the preceding sundown, resume the following morning, and continue through the day to sundown.

COLUMBUS DAY—Monday, Oct. 12—A legal holiday in many states, commemorating the discovery of America by Columbus in 1492. Quite likely the first celebration of Columbus Day was that organized in 1792 by the Society of St. Tammany, or Columbian Order, more widely known as Tammany Hall.

FIRST DAY OF SUKKOTH (Feast of Tabernacles)—Saturday, Oct. 17 (Tishri 15)—This festival, also known as the Feast of the Ingathering, originally celebrated the fruit harvest, and the name comes from the booths or tabernacles in which the Jews lived during the harvest, although one tradition traces it to the shelters used by the Jews in their wandering through the wilderness. During the festival, many Jews build small huts in their back yards or on the roofs of their houses.

ELECTION DAY (in certain states)—Tuesday, Nov. 3—Since 1845, by Act of Congress, the first Tuesday after the first Monday in November is the date for choosing Presidential electors. State elections are also generally held on this day.

VETERANS DAY—Wednesday, Nov. 11—Armistice Day was established in 1926 to commemorate the signing in 1918 of the Armistice ending World War I. On June 1, 1954, the name was changed to Veterans Day so as to honor all men and women who have served America in its armed forces.

THANKSGIVING—Thursday, Nov. 26—Observed nationally on the fourth Thursday in November by Act of Congress (1941), the first such national proclamation having been issued by President Lincoln in 1863, on the urging of Mrs. Sarah J. Hale, editor of *Godey's Lady's Book*. Most Americans believe that the holiday dates back to the day of thanks ordered by Governor Bradford of Plymouth Colony in New England in 1621 but scholars point out that days of thanks stem from ancient times.

FIRST SUNDAY OF ADVENT—Nov. 29—Advent is the season in which the faithful must prepare themselves for the advent of the Saviour on Christmas. The four Sun-

days before Christmas are marked by special church services.

CHRISTMAS (Feast of the Nativity)—Friday, Dec. 25—The most widely celebrated holiday of the Christian year, Christmas is observed as the anniversary of the birth of Jesus. Christmas customs are centuries old. The mistletoe, for example, comes from the Druids, who, in hanging the mistletoe, hoped for peace and good fortune. Use of such plants as holly comes from the ancient belief that such plants blossomed at Christmas. Comparatively recent is the Christmas tree, first set up in Germany in the 17th century, and the use of candles on trees developed from the

belief that candles appeared by miracle on the trees at Christmas. Colonial Manhattan Islanders introduced the name Santa Claus, a corruption of the Dutch name for the 4th-century Asia-Minor St. Nicholas.

FIRST DAY OF HANUKKAH (Festival of Lights)—Saturday, Dec. 26 (Kislev 25)—This festival was instituted by Judas Maccabaeus in 165 B.C. to celebrate the purification of the Temple of Jerusalem, which had been desecrated three years earlier by Antiochus Epiphanes, who set up a pagan altar and offered sacrifices to Zeus Olympius. In Jewish homes, a light is lighted the first night, and on each succeeding night of the eight-day festival, another is lighted.

Movable Holidays, 1959 to 1968

CHRISTIAN AND SECULAR

Year	Ash Wed.	Easter	Pentecost	Labor Day	Election Day	Thanksgiving	1st Sun. Advent
1959	Feb. 11	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1960	Mar. 2	Apr. 17	June 5	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1961	Feb. 15	Apr. 2	May 21	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1962	Mar. 7	Apr. 22	June 10	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1963	Feb. 27	Apr. 14	June 2	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1964	Feb. 12	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1965	Mar. 3	Apr. 18	June 6	Sept. 6	Nov. 2	Nov. 25	Nov. 28
1966	Feb. 23	Apr. 10	May 29	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1967	Feb. 8	Mar. 26	May 14	Sept. 4	Nov. 7	Nov. 23	Dec. 3
1968	Feb. 28	Apr. 14	June 2	Sept. 2	Nov. 5	Nov. 28	Dec. 1

Shrove Tuesday: 1 day before Ash Wednesday.

Palm Sunday: 7 days before Easter.

Maundy Thursday: 3 days before Easter.

Good Friday: 2 days before Easter.

Holy Saturday: 1 day before Easter.

Ascension Day: 10 days before Pentecost.

Trinity Sunday: 7 days after Pentecost.

Corpus Christi: 11 days after Pentecost.

JEWISH

Year	Purim	1st day Passover	1st day Shabuoth	1st day Rosh Hashana	Yom Kippur	1st day Sukkoth	Simhath Torah	1st day Hanukkah
1959	Mar. 24	Apr. 23	June 12	Oct. 3	Oct. 12	Oct. 17	Oct. 25	Dec. 26
1960	Mar. 13	Apr. 12	June 1	Sept. 22	Oct. 1	Oct. 6	Oct. 14	Dec. 14
1961	Mar. 2	Apr. 1	May 21	Sept. 11	Sept. 20	Sept. 25	Oct. 3	Dec. 3
1962	Mar. 20	Apr. 19	June 8	Sept. 29	Oct. 8	Oct. 13	Oct. 21	Dec. 22
1963	Mar. 10	Apr. 9	May 29	Sept. 19	Sept. 28	Oct. 3	Oct. 11	Dec. 11
1964	Feb. 27	Mar. 28	May 17	Sept. 7	Sept. 16	Sept. 21	Sept. 29	Nov. 30
1965	Mar. 18	Apr. 17	June 6	Sept. 27	Oct. 6	Oct. 11	Oct. 19	Dec. 19
1966	Mar. 6	Apr. 5	May 25	Sept. 15	Sept. 24	Sept. 29	Oct. 7	Dec. 8
1967	Mar. 26	Apr. 25	June 14	Oct. 5	Oct. 14	Oct. 19	Oct. 27	Dec. 27
1968	Mar. 14	Apr. 13	June 2	Sept. 23	Oct. 2	Oct. 7	Oct. 15	Dec. 16

Length of Jewish holidays (O = Orthodox, C = Conservative, R = Reform):

Passover: O & C, 8 days (holy days: first 2 and last 2); R, 7 days (holy days: first and last).

Shabuoth: O & C, 2 days; R, 1 day.

Rosh Hashana: O & C, 2 days; R, 1 day.

Yom Kippur: All groups, 1 day.

Sukkoth: All groups, 7 days (holy days: O & C, first 2; R, first only). O & C observe two additional days: Shemini

Atzereth (Eighth Day of the Feast) and Simhath Torah (Rejoicing of the Law). R observes Shemini Atzereth but not Simhath Torah.

Hanukkah: All groups, 8 days.

NOTE: All holidays begin at sundown on the evening before the date given.

Legal Holidays in the 49 States, D. C., Hawaii and Puerto Rico

Holidays Widely Observed

January 1, New Year's Day: All states, D. C., Hawaii, Puerto Rico.

February 12, Lincoln's Birthday: Alaska, Arizona, California, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Minnesota, Missouri, Montana, New Jersey, New Mexico, New York, North Dakota, Oregon, Pennsylvania, South Dakota, Tennessee, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming.

February 22, Washington's Birthday: All states (except Louisiana, Nebraska, Nevada), D. C., Hawaii, Puerto Rico.

May 30, Memorial (or Decoration) Day: All states (except Alabama, Georgia, Mississippi, South Carolina, Texas), D. C., Hawaii, Puerto Rico.

July 4, Independence Day: All states, D. C., Hawaii, Puerto Rico.

September (1st Monday), Labor Day: All states, D. C., Hawaii, Puerto Rico.

October 12, Columbus Day: All states (except Alaska, Arkansas, D. C., Iowa, Kansas,* Louisiana, Maine, Mississippi, Nebraska, North Carolina, Oregon, South Carolina, South Dakota, Tennessee, Virginia, Wyoming), Puerto Rico.

November (1st Tuesday after 1st Monday), Election Day: Alaska, Arizona, California, Colorado, Delaware, Florida, Illinois, Indiana, Iowa, Louisiana, Maryland, Michigan, Missouri, Montana, New Hampshire,* New Jersey, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, Wyoming, Hawaii, Puerto Rico.

November 11, Veterans Day (formerly Armistice Day): All states except Nebraska, D. C., Hawaii, Puerto Rico.

November (4th Thursday), Thanksgiving Day: All states, D. C., Hawaii, Puerto Rico.

December 25, Christmas: All states, D. C., Hawaii, Puerto Rico.

Other Holidays

January 6, Three Kings' Day: Puerto Rico.

January 8, Battle of New Orleans: Louisiana.

January 11, De Hostos' Birthday: Puerto Rico.

January 19, Robert E. Lee's Birthday: Alabama, Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia.†

January 20, Inauguration Day (every 4 yrs.): D. C., Louisiana (Baton Rouge, only).

January 30, F. D. Roosevelt's Birthday: Kentucky.

February or March (1 day before Ash Wednesday), Mardi Gras (Shrove Tuesday): Alabama, Florida (in some counties), Louisiana (in some parishes and municipalities).

February 14, Statehood Day: Arizona.

March (first Tuesday), Town Meeting Day: Vermont.

March 2, Texas Independence Day.

March 15, Andrew Jackson's Birthday: Tennessee.

March 17, Evacuation Day: Massachusetts (in Suffolk Co. only).

March or April (2 days before Easter), Good Friday: California (12 M.-3 P.M.), Connecticut, Delaware, Florida, Illinois, Indiana, Louisiana, Maryland, Minnesota, New Jersey, North Dakota, Pennsylvania, Tennessee, Hawaii, Puerto Rico.

March or April (1 day after Easter), Easter Monday: North Carolina.

March 22, Emancipation Day: Puerto Rico.

March 25, Marilio Day.

March 26, Kuhio Day: Hawaii.

March 30, Seward's Day: Alaska.

April (date set by governor), Arbor Day: Utah, Wyoming.

April 12, Halifax Resolutions Anniversary: N. C.

April 13, Thomas Jefferson's Birthday: Alabama, Oklahoma.

April 16, De Diego's Birthday: Puerto Rico.

April 19, Patriots' Day: Maine, Massachusetts.

April 21, San Jacinto Day: Texas.

April 22, Oklahoma Day.

April 26, Confederate Memorial Day: Alabama, Florida, Georgia, Mississippi.

April (4th Monday), Fast Day: New Hampshire.

May (1st Friday), Arbor Day: North Dakota.

May 1, Bird Day: Oklahoma.

May 4, Rhode Island Independence Day.

May (2nd Sunday), Mother's Day: Ariz., Okl.

May 10, Confederate Memorial Day: North Carolina, South Carolina.

May 20, Mecklenburg Independence Day: N. C.

June 3, Jefferson Davis' Birthday: Alabama, Florida, Georgia, Kentucky,† Louisiana,† Mississippi, South Carolina, Tennessee,† Texas.

June 9, Senior Citizen's Day: Oklahoma.

June 11, Kamehameha Day: Hawaii.

June 14, Flag Day: Pennsylvania.

June 17, Bunker Hill Day: Massachusetts (in Suffolk Co. only).

June 20, West Virginia Day.

July 13, Nathan Bedford Forrest's Birthday: Tenn.

July 17, Muñoz Rivera's Birthday: Puerto Rico.

July 24, Pioneer Day: Utah.

July 25, Constitution Day: Puerto Rico.

July 27, Barbosa's Birthday: Puerto Rico.

August 1, Colorado Day.

August 14, World War II Memorial: Ark., R. I.

August 16, Bennington Battle Day: Vermont.

August 30, Huey P. Long Day: Louisiana.

September (1st Saturday after full moon), Indian Day: Oklahoma.

September 9, Admission Day: California.

September 12, Defenders' Day: Maryland.

September 16, Cherokee Strip Day: Oklahoma.

October (Thursday of State Fair Week): South Carolina (in counties where fair is held).

October 10, Oklahoma Historical Day.

October 18, Alaska Day.

October 31, Nevada Day.

November 1, All Saints' Day: Louisiana.

November 4, Will Rogers Day: Oklahoma.

November 11, Admission Day: Washington.

November 19, Discovery Day: Puerto Rico.

December 26, Day after Christmas: S. C.

* However, declared "public holiday." † Called Lee-Jackson Day. ‡ Called Confederate Memorial Day. § Called Victory (VJ) Day.

AWARDS



NOBEL PRIZES

The Nobel prizes are awarded under the will of Alfred Bernhard Nobel, Swedish chemist and engineer, who died in 1896. The interest of the fund is divided annually among the persons who have made the most outstanding contributions in the field of physics, chemistry, and physiology or medicine, who have produced the most distinguished literary work of an idealist tendency, and who have contributed most toward world peace.

The prizes for physics and chemistry are awarded by the Swedish Academy of Science in Stockholm, the one for physiology or medicine by the Caroline Medical Institute in Stockholm, that for literature by the academy in Stockholm, and that for peace by a committee of five elected by the Norwegian Storting. The distribution of prizes was begun on December 10, 1901, the anniversary of Nobel's death. The amount of each prize varies with the income from the fund and since 1936 has stood at approximately £8,000.

No Nobel prizes were awarded for 1940, 1941 and 1942; prizes for Literature and Peace were not awarded for 1943.

Year	Literature	Peace
1901	René F. A. Sully Prudhomme (France)	Henri Dunant (Switzerland) and Frederick Passy (France)
1902	Theodor Mommsen (Germany)	Elie Ducommun and Albert Gobat (Switzerland)
1903	Björnstjerne Björnson (Norway)	Sir William R. Cremer (England)
1904	Frédéric Mistral (France) and José Echegaray (Spain)	Institut de Droit International (Belgium)
1905	Henryk Sienkiewicz (Poland)	Bertha von Suttner (Austria)
1906	Giosuè Carducci (Italy)	Theodore Roosevelt (U. S.)
1907	Rudyard Kipling (England)	Ernesto T. Moneta (Italy) and Louis Renault (France)
1908	Rudolf Eucken (Germany)	Klas P. Arnoldson (Sweden) and Frederik Bajer (Denmark)
1909	Selma Lagerlöf (Sweden)	Auguste M. F. Beernaert (Belgium) and Baron Paul H. B. B. d'Estournelles de Constant de Rebecque (France)
1910	Paul von Heyse (Germany)	Bureau International Permanent de la Paix (Switzerland)
1911	Maurice Maeterlinck (Belgium)	Tobias M. C. Asser (Holland) and Alfred H. Fried (Austria)
1912	Gerhart Hauptmann (Germany)	Elihu Root (U. S.)
1913	Rabindranath Tagore (India)	Henri La Fontaine (Belgium)
1915	Romain Rolland (France)	No award
1916	Verner von Heidenstam (Sweden)	No award
1917	Karl Gjellerup (Denmark) and Henrik Pontoppidan (Denmark)	International Red Cross
1919	Carl Spitteler (Switzerland)	Woodrow Wilson (U. S.)
1920	Knut Hamsun (Norway)	Léon Bourgeois (France)
1921	Anatole France (France)	Karl H. Branting (Sweden) and Christian L. Lange (Norway)
1922	Jacinto Benavente (Spain)	Fridtjof Nansen (Norway)
1923	William B. Yeats (Ireland)	No award
1924	Wladyslaw Reymont (Poland)	No award
1925	George Bernard Shaw (England)	Sir Austen Chamberlain (England) and Charles G. Dawes (U. S.)
1926	Grazia Deledda (Italy)	Aristide Briand (France) and Gustav Stresemann (Germany)
1927	Henri Bergson (France)	Ferdinand Buisson (France) and Ludwig Quidde (Germany)
1928	Sigrid Undset (Norway)	No award
1929	Thomas Mann (Germany)	Frank B. Kellogg (U. S.)
1930	Sinclair Lewis (U. S.)	Lars O. J. Söderblom (Sweden)
1931	Erik A. Karlfeldt (Sweden)	Jane Addams and Nicholas M. Butler (U. S.)
1932	John Galsworthy (England)	No award
1933	Ivan G. Bunin (Russia)	Sir Norman Angell (England)
1934	Luigi Pirandello (Italy)	Arthur Henderson (England)
1935	No award	Karl von Ossietzky (Germany)
1936	Eugene O'Neill (U. S.)	Carlos de S. Lamas (Argentina)
1937	Roger Martin du Gard (France)	Lord Cecil of Chelwood (England)
1938	Pearl S. Buck (U. S.)	Office International Nansen pour les Réfugiés (Switzerland)
1939	Frans Eemil Sillanpää (Finland)	No award
1944	Johannes V. Jensen (Denmark)	International Red Cross
1945	Gabriela Mistral (Chile)	Cordell Hull (U. S.)
1946	Hermann Hesse (Switzerland)	Emily G. Balch and John R. Mott (U. S.)

Year	Literature	Peace
1947	André Gide (France)	Am. Friends Service Com. (U. S.), Brit. Soc. of Friends' Service Council (Eng.)
1948	Thomas Stearns Eliot (England)	No award
1949	William Faulkner (U. S.)	Lord John Boyd Orr (Scotland)
1950	Bertrand Russell (England)	Ralph J. Bunche (U. S.)
1951	Pär Lagerkvist (Sweden)	Léon Jouhaux (France)
1952	François Mauriac (France)	Albert Schweitzer (Fr. Eq. Af.)
1953	Sir Winston Churchill (England)	George C. Marshall (U. S.)
1954	Ernest Hemingway (U. S.)	Office of U.N. High Commissioner for Refugees
1955	Halldór Kiljan Laxness (Iceland)	No award
1956	Juan Ramón Jiménez (Spain)	No award
1957	Albert Camus (France)	Lester B. Pearson (Canada)

Year	Physics	Chemistry	Medicine
1901	Wilhelm K. Roentgen, for discovery of Roentgen rays.	Jacobus H. van't Hoff, for laws of chemical dynamics and osmotic pressure in solutions.	Emil A. von Behring, for work on serum therapy against diphtheria.
1902	Hendrik A. Lorentz and Pieter Zeeman, for work on influence of magnetism upon radiation.	Emil Fischer, for experiments in sugar and purin groups of substances.	Sir Ronald Ross, for work on malaria.
1903	A. Henri Becquerel, work on discovery of spontaneous radioactivity. Pierre and Marie Curie; study of radiation.	Svante A. Arrhenius, for his electrolytic theory of dissociation.	Niels R. Finsen, for his treatment of lupus vulgaris, with concentrated light rays.
1904	John Strutt (Lord Rayleigh) for discovery of argon in investigating gas density.	Sir William Ramsay; discovery and determination of place of inert gaseous elements in air.	Ivan P. Pavlov, for work on the physiology of digestion.
1905	Philipp Lenard, for work with cathode rays.	Adolf von Baeyer, for work on organic dyes and hydroaromatic combinations.	Robert Koch, for work on tuberculosis.
1906	Joseph J. Thomson, for investigations on passage of electricity through gases.	Henri Moissan, for isolation of fluorine, and introduction of electric furnace.	Camillo Golgi and Santiago Ramón y Cajal, for work on structure of the nervous system.
1907	Albert A. Michelson, for spectroscopic and meteorologic investigations.	Eduard Buchner; discovery of cell-less fermentation and investigations in biological chemistry.	Charles L. A. Laveran, for work with protozoa in the generation of disease.
1908	Gabriel Lippmann, for method of reproducing colors by photography.	Ernest Rutherford, for investigations into disintegration of elements and chemistry of radioactive substances.	Paul Ehrlich and Élie Metchnikoff, for work on immunity.
1909	Guglielmo Marconi and Ferdinand Braun, for development of wireless.	Wilhelm Ostwald, for work on catalysis and investigations into chemical equilibrium and reaction rates.	Theodor Kocher, for work on the thyroid gland.
1910	Johannes D. van der Waals, for work with the equation of state for gases and liquids.	Otto Wallach, for work in the field of alicyclic compounds.	Albrecht Kossel, for achievements in the chemistry of the cell.
1911	Wilhelm Wien, for his laws governing the radiation of heat.	Marie Curie, for discovery of elements radium and polonium.	Allvar Gullstrand, for work on the dioptrics of the eye.
1912	Gustaf Dalén, for discovery of automatic regulators used in lighting lighthouses and light buoys.	Victor Grignard, for reagent discovered by and named after him. Paul Sabatier, for the methods of hydrogenating organic compounds.	Alexis Carrel, for work on vascular ligature and grafting of blood vessels and organs.

Year	Physics	Chemistry	Medicine
1913	H. Kamerlingh-Onnes, for work leading to production of liquid helium.	Alfred Werner, for linking up atoms within the molecule.	Charles Richet, for work on anaphylaxis.
1914	Max von Laue, for discovery of diffraction of Roentgen rays passing through crystals.	Theodore W. Richards, for determining atomic weight of many chemical elements.	Robert Bárány, for work on physiology and pathology of the vestibular system.
1915	W. H. Bragg and W. L. Bragg, for analysis of crystal structure by means of X rays.	Richard Willstätter, for research into coloring matter of plants, especially chlorophyll.	No award.
1917	Charles G. Barkla, discovery of Roentgen radiation of the elements.	No award.	No award.
1918	Max Planck, for discoveries in connection with quantum theory.	Fritz Haber, for synthetic production of ammonia.	No award.
1919	Johannes Stark, discovery of Doppler effect in Canal rays and decomposition of spectrum lines by electric fields.	No award.	Jules Bordet, for discoveries in connection with immunity.
1920	Charles E. Guillaume, for discoveries of anomalies in nickel steel alloys.	Walther Nernst, for work in thermochemistry.	August Krogh, discovery of regulation of capillaries' motor mechanism.
1921	Albert Einstein, for discovery of the law of the photoelectric effect.	Frederick Soddy, for investigations into origin and nature of isotopes.	No award.
1922	Niels Bohr, for investigations of structure of atoms and radiations emanating from them.	Francis W. Aston, for discovery of isotopes in nonradioactive elements and for discovery of the whole number rule.	In 1923 the 1922 prize was divided between Archibald V. Hill for discovery relating to heat-production in muscles; and Otto Meyerhof, for correlation between consumption of oxygen and production of lactic acid in muscles.
1923	Robert A. Millikan, work on elementary charge of electricity and photoelectric phenomena.	Fritz Pregl, for method of microanalysis of organic substances discovered by him.	Frederick G. Banting and John J. R. Macleod, for discovery of insulin.
1924	Karl M. G. Siegbahn, for investigations in X-ray spectroscopy.	No award.	Willem Einthoven, for discovering the mechanism of the electrocardiogram.
1925	James Franck and Gustav Hertz, for discovery of laws governing impact of electrons upon atoms.	In 1926 the 1925 prize was awarded to Richard Zsigmondy, for work on the heterogeneous nature of colloid solutions.	No award.
1926	Jean B. Perrin, for works on discontinuous structure of matter and discovery of the equilibrium of sedimentation.	Theodor Svedberg, for work on disperse systems.	Johannes Fibiger, for discovery of the Spiroptera carcinoma.
1927	Arthur H. Compton, discovery of Compton phenomenon; and Charles T. R. Wilson, for method of perceiving paths taken by electrically charged particles.	In 1928 the 1927 prize was awarded to Heinrich Wieland, for investigations of bile acids and kindred substances.	Julius Wagner-Jauregg, for use of malaria inoculation in treatment of dementia paralytica.

Year	Physics	Chemistry	Medicine
1928	In 1929 the 1928 prize was awarded to Owen W. Richardson, for work on the phenomenon of thermionics and discovery of the Richardson Law.	Adolf Windaus, for investigations on constitution of the sterols and their connection with vitamins.	Charles Nicolle, for work on typhus exanthematicus.
1929	Prince Louis Victor de Broglie, for discovery of the wave character of electrons.	Arthur Harden and Hans K. A. S. von Euler-Chelpin, for research of fermentation of sugars.	Christiaan Eijkman, for discovery of the antineuritic vitamins; and Sir Frederick G. Hopkins, for discovery of growth-promoting vitamins.
1930	Sir Chandrasekhara V. Raman, for work on diffusion of light and discovery of the Raman effect.	Hans Fischer, for work on coloring matter of blood and leaves and for his synthesis of hemin.	Karl Landsteiner, for discovery of human blood groups.
1931	No award.	Karl Bosch and Friedrich Bergius, for invention and development of chemical high-pressure methods.	Otto H. Warburg, for discovery of the character and mode of action of the respiratory ferment.
1932	In 1933 the prize for 1932 was awarded to Werner Heisenberg, for creation of the quantum mechanics.	Irving Langmuir, for work in realm of surface chemistry.	Sir Charles S. Sherrington and Edgar D. Adrian, for discoveries of the function of the neuron.
1933	Erwin Schrödinger and Paul A. M. Dirac, for discovery of new fertile forms of the atomic theory.	No award.	Thomas H. Morgan, for discoveries on hereditary function of the chromosomes.
1934	No award.	Harold C. Urey, for discovery of heavy hydrogen.	George H. Whipple, George R. Minot, and William P. Murphy, for discovery of liver therapy against anemias.
1935	James Chadwick, for discovery of the neutron.	Frédéric and Irène Joliot-Curie, for synthesis of new radioactive elements.	Hans Spemann, for discovery of the organizer-effect in embryonic development.
1936	Victor F. Hess, for discovery of cosmic radiation; and Carl D. Anderson, for discovery of the positron.	Peter J. W. Debye, for investigations on dipole moments and diffraction of X rays and electrons in gases.	Sir Henry H. Dale and Otto Loewi, for discoveries on chemical transmission of nerve impulses.
1937	Clinton J. Davisson and George P. Thomson, for discovery of diffraction of electrons by crystals.	Walter N. Haworth, for research on carbohydrates and vitamin C; and Paul Karrer, for work on carotenoids, flavins and vitamins A and B.	Albert Szent-Györgyi von Nagyrápolt, for discoveries on biological combustion.
1938	Enrico Fermi, for identification of new radioactivity elements and discovery of nuclear reactions effected by slow neutrons.	Richard Kuhn, for carotinoid study and vitamin research (declined the prize).	Cornellie Heymans, for importance of sinus and aorta mechanisms in the regulation of respiration.
1939	Ernest Orlando Lawrence, for the development of the cyclotron.	Adolf Friedrich Johann Butenandt, for work on sexual hormones (declined the prize); and Leopold Růžicka, work with polymethylenes.	Gerhard Domagk, antibacterial effect of prontosil.

Year	Physics	Chemistry	Medicine
1943	Otto Stern, for detection of magnetic momentum of protons.	George Hevesy De Heves, for work on use of isotopes as indicators.	Henrik Dam, Edward A. Dolsy for the analysis of Vitamin K.
1944	Isidor Isaac Rabi, for work on magnetic movements of atomic particles.	Otto Hahn, for work on atomic fission.	Joseph Erlanger and Herbert Spencer Gasser, for work on functions of the nerve threads.
1945	Wolfgang Pauli, for work on atomic fissions.	Artturi Ilmari Virtanen, for research in the field of conservation of fodder.	Sir Alexander Fleming, Ernst Boris Chain, and Sir Howard Florey, for discovery of penicillin.
1946	Percy Williams Bridgman, studies and inventions in high-pressure physics.	James B. Sumner, crystallizing of enzymes. John H. Northrop and Wendell M. Stanley, preparing enzymes and virus proteins in pure form.	Herman J. Muller, hereditary effects of X ray on genes.
1947	Sir Edward Appleton, for discovery of layer which reflects radio short waves in the ionosphere.	Sir Robert Robinson, for research in plant substances.	Carl F. and Gerty T. Cori, for work on animal starch metabolism; Bernardo A. Houssay, for study of pituitary.
1948	Patrick M. S. Blackett, for improvement on Wilson chamber, discoveries in cosmic radiation.	Arne Tiselius, for biochemical discoveries and isolation of mouse paralytic virus.	Paul Mueller, for discovery of insect-killing properties of DDT.
1949	Hideki Yukawa, for mathematical prediction, 14 years ago, of the meson.	William Francis Giaque, for research in thermodynamics, especially effects of low temperature.	Walter Rudolf Hess, for research on brain control of body; and Antonio Caetano de Abreu Freire Egas Moniz, for development of brain operation.
1950	Cecil Frank Powell, for method of photographic study of atom nucleus, and for discoveries about mesons.	Otto Diels and Kurt Alder for discovery of diene synthesis enabling scientists to study structure of organic matter.	Philip S. Hench, Edward C. Kendall, and Tadeus Reichstein, for discoveries about hormones of adrenal cortex.
1951	Sir John Douglas Cockcroft and Ernest T. S. Walton, for work in 1932 on transmutation of atomic nuclei.	Glenn T. Seaborg and Edwin M. McMillan, for discovery of plutonium.	Max Theller, for development of anti-yellow fever vaccine.
1952	Edward Mills Purcell and Felix Bloch, for work in measurement of magnetic fields in atomic nuclei.	Archer John Porter Martin and Richard Laurence Millington Synge, for development of partition chromatography.	Selman A. Waksman, for co-discovery of streptomycin.
1953	Fritz Zernike, for development of "phase contrast" microscope.	Hermann Staudinger, for research in giant molecules.	Fritz A. Lipmann and Hans Adolph Krebs, for studies of living cells.
1954	Max Born, for work in quantum mechanics; and Walther Bothe, for work in cosmic radiation.	Linus Pauling, for study of forces holding together protein and other molecules.	John F. Enders, Thomas H. Weller and Frederick C. Robbins, for work with cultivation of polio virus.
1955	Polykarp Kusch and Willis E. Lamb, for work in atomic measurement.	Vincent du Vigneaud, for work on pituitary hormones.	Hugo Theorell, for work on oxidation enzymes.
1956	William Shockley, Walter H. Brattain and John Bardeen for developing electronic transistor.	Cyril Hinshelwood and Nikolai N. Semenov for parallel research on chemical reaction kinetics.	Dickinson W. Richards, Jr., André F. Cournand and Werner Forssmann for new techniques in heart disease.

Year	Physics	Chemistry	Medicine
1957	Tsung Dao Lee and Chen Ning Yang, for disproving principle of conservation of parity.	Sir Alexander Todd, for research with chemical compounds that are factors in heredity.	Daniel Bovet, for development of drugs to relieve allergies and relax muscles during surgery.

(For 1958 Nobel prize winners, see Nobel prizes in index.)

Pulitzer Prize Awards

Source: Columbia University, New York. (For years not listed, no award was made.)

Pulitzer Prizes in Journalism

Meritorious Public Service	Editorial	dence [R. I.] Journal-Bulletin)
1918 <i>New York Times</i>	1917 <i>New York Tribune</i>	1946 HODDING CARTER ([Green-ville, Miss.] <i>Delta Democrat-Times</i>)
1919 <i>Milwaukee Journal</i>	1918 <i>Louisville Courier-Journal</i>	1947 WILLIAM H. GRIMES (<i>Wall Street Journal</i>)
1921 <i>Boston Post</i>	1920 HARVEY E. NEWBRANCH (<i>Omaha Evening World-Herald</i>)	1948 VIRGINIUS DABNEY (<i>Richmond Times-Dispatch</i>)
1922 <i>New York World</i>	1922 FRANK M. O'BRIEN (<i>New York Herald</i>)	1949 JOHN H. CRIDER (<i>Boston Herald</i>); HERBERT ELLISTON (<i>Washington Post</i>)
1923 <i>Memphis Commercial Appeal</i>	1923 WILLIAM ALLEN WHITE (<i>Emporia [Kans.] Gazette</i>)	1950 CARL M. SAUNDERS (<i>Jackson [Mich.] Citizen Patriot</i>)
1924 <i>New York World</i>	1924 <i>Boston Herald</i> ; Special prize: FRANK I. COBB (<i>New York World</i>)	1951 WILLIAM H. FITZPATRICK (<i>New Orleans States</i>)
1926 <i>Columbus (Ga.) Enquirer Sun</i>	1925 <i>Charleston (S. C.) News and Courier</i>	1952 LOUIS LACOSS (<i>St. Louis Globe-Democrat</i>)
1927 <i>Canton (Ohio) Daily News</i>	1926 <i>New York Times</i> (EDWARD M. KINGSBURY)	1953 VERMONT C. ROYSTER (<i>Wall Street Journal</i>)
1928 <i>Indianapolis Times</i>	1927 <i>Boston Herald</i> (F. LAURISTON BULLARD)	1954 <i>Boston Herald</i> (DON MURRAY)
1929 <i>New York Evening World</i>	1928 GROVER CLEVELAND HALL (<i>Montgomery [Ala.] Advertiser</i>)	1955 <i>Detroit Free Press</i> (ROYCE HOWES)
1931 <i>Atlanta Constitution</i>	1929 LOUIS ISAAC JAFFE (<i>Norfolk Virginian-Pilot</i>)	1956 LAUREN K. SOTH (<i>Des Moines Register & Tribune</i>)
1932 <i>Indianapolis News</i>	1931 CHARLES S. RYCKMAN (<i>Fremont [Nebr.] Tribune</i>)	1957 BUFORD BOONE (<i>Tuscaloosa [Ala.] News</i>)
1933 <i>New York World-Telegram</i>	1933 <i>Kansas City (Mo.) Star</i>	1958 HARRY S. ASHMORE (<i>Arkansas Gazette</i>)
1934 <i>Medford (Oreg.) Mail Tribune</i>	1934 E. P. CHASE (<i>Atlantic [Iowa] News Telegraph</i>)	Correspondence
1935 <i>Sacramento Bee</i>	1936 FELIX MORLEY (<i>Washington [D.C.] Post</i>); GEORGE B. PARKER (<i>Scripps-Howard Newspapers</i>)	1929 PAUL SCOTT MOWRER (<i>Chicago Daily News</i>)
1936 <i>Cedar Rapids (Iowa) Gazette</i>	1937 JOHN W. OWENS (<i>Baltimore Sun</i>)	1930 LELAND STOWE (<i>New York Herald Tribune</i>)
1937 <i>St. Louis Post-Dispatch</i>	1938 W. W. WAYMACK (<i>Des Moines Register & Tribune</i>)	1931 H. R. KNICKERBOCKER (<i>Philadelphia Public Ledger and New York Evening Post</i>)
1938 <i>Bismarck (N. Dak.) Tribune</i>	1939 RONALD G. CALLVERT (<i>Portland Oregonian</i>)	1932 WALTER DURANTY (<i>New York Times</i>); CHARLES G. ROSS (<i>St. Louis Post-Dispatch</i>)
1939 <i>Miami Daily News</i>	1940 BART HOWARD (<i>St. Louis Post-Dispatch</i>)	1933 EDGAR ANSEL MOWRER (<i>Chicago Daily News</i>)
1940 <i>Waterbury (Conn.) Republican & American</i>	1941 REUBEN MAURY (<i>New York Daily News</i>)	1934 FREDERICK T. BIRCHALL (<i>New York Times</i>)
1941 <i>St. Louis Post-Dispatch</i>	1942 GEOFFREY PARSONS (<i>New York Herald Tribune</i>)	1935 ARTHUR KROCK (<i>New York Times</i>)
1942 <i>Los Angeles Times</i>	1943 FORREST W. SEYMOUR (<i>Des Moines Register & Tribune</i>)	1936 WILFRED C. BARBER (<i>Chicago Tribune</i>)
1943 <i>Omaha World-Herald</i>	1944 <i>Kansas City (Mo.) Star</i> (HENRY J. HASKELL)	1937 ANNE O'HARE MCCORMICK (<i>New York Times</i>)
1944 <i>New York Times</i>	1945 GEORGE W. POTTER (<i>Provi-</i>	1938 ARTHUR KROCK (<i>New York Times</i>)
1945 <i>Detroit Free Press</i>		
1946 <i>Scranton (Pa.) Times</i>		
1947 <i>Baltimore Sun</i>		
1948 <i>St. Louis Post-Dispatch</i>		
1949 (<i>Lincoln</i>) <i>Nebraska State Journal</i>		
1950 <i>Chicago Daily News</i> ; <i>St. Louis Post-Dispatch</i>		
1951 <i>Miami Herald</i> ; <i>Brooklyn Eagle</i>		
1952 <i>St. Louis Post-Dispatch</i>		
1953 <i>Whiteville (N. C.) News Reporter</i> ; <i>Tabor City (N. C.) Tribune</i>		
1954 (<i>Garden City, L. I.</i>) <i>Newsday</i>		
1955 <i>Columbus (Ga.) Ledger & Sunday Ledger-Enquirer</i>		
1956 <i>Watsonville (Calif.) Register-Pajaronian</i>		
1957 <i>Chicago Daily News</i>		
1958 (<i>Little Rock</i>) <i>Arkansas Gazette</i>		

- 1939 LOUIS P. LOCHNER (Associated Press)
 1940 OTTO D. TOLISCHUS (*New York Times*)
 1941 Group award*
 1942 CARLOS P. ROMULO (*Philippines Herald*)
 1943 HANSON W. BALDWIN (*New York Times*)
 1944 ERNIE PYLE (Scripps-Howard Newspaper Alliance)
 1945 HAROLD V. (HAL) BOYLE (Associated Press)
 1946 ARNALDO CORTESI (*New York Times*)
 1947 BROOKS ATKINSON (*New York Times*)
 1948 Discontinued

Cartoon

- 1922 ROLLIN KIRBY (*New York World*)
 1924 JAY NORWOOD DARLING (*New York Tribune*)
 1925 ROLLIN KIRBY (*New York World*)
 1926 D. R. FITZPATRICK (*St. Louis Post-Dispatch*)
 1927 NELSON HARDING (*Brooklyn Eagle*)
 1928 NELSON HARDING (*Brooklyn Eagle*)
 1929 ROLLIN KIRBY (*New York World*)
 1930 CHARLES R. MACAULEY (*Brooklyn Eagle*)
 1931 EDMUND DUFFY (*Baltimore Sun*)
 1932 JOHN T. MCCUTCHEON (*Chicago Tribune*)
 1933 H. M. TALBUT (*Washington Daily News*)
 1934 EDMUND DUFFY (*Baltimore Sun*)
 1935 ROSS A. LEWIS (*Milwaukee Journal*)
 1937 C. D. BATCHELOR (*New York Daily News*)
 1938 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1939 CHARLES G. WERNER (*Daily Oklahoman* [Oklahoma City])
 1940 EDMUND DUFFY (*Baltimore Sun*)
 1941 JACOB BURCK (*Chicago Times*)
 1942 HERBERT L. BLOCK (NEA Service)
 1943 JAY NORWOOD DARLING (*New York Herald Tribune*)
 1944 CLIFFORD K. BERRYMAN (*Washington* [D. C.] *Evening Star*)
 1945 BILL MAULDIN (United Features Syndicate)
 1946 BRUCE ALEXANDER RUSSELL (*Los Angeles Times*)

*For the public services and the individual achievements of American news reporters in the war zones.

- 1947 VAUGHN SHOEMAKER (*Chicago Daily News*)
 1948 REUBEN L. GOLDBERG (*New York Sun*)
 1949 LUTE PEAASE (*Newark Evening News*)
 1950 JAMES T. BERRYMAN (*Washington* [D. C.] *Evening Star*)
 1951 REG (REGINALD W.) MANNING (*Arizona Republic* [Phoenix])
 1952 FRED L. PACKER (*New York Mirror*)
 1953 EDWARD D. KUEKES (*Cleveland Plain Dealer*)
 1954 HERBERT L. BLOCK (*Washington* [D. C.] *Post & Times-Herald*)
 1955 DANIEL R. FITZPATRICK (*St. Louis Post-Dispatch*)
 1956 ROBERT YORK (*Louisville Times*)
 1957 TOM LITTLE (*Nashville Tennessean*)
 1958 BRUCE M. SHANKS (*Buffalo Evening News*)

News Photography

- 1942 MILTON BROOKS (*Detroit News*)
 1943 FRANK NOEL (Associated Press)
 1944 FRANK FILAN (Associated Press); EARLE L. BUNKER (*Omaha World-Herald*)
 1945 JOE ROSENTHAL (Associated Press)
 1947 ARNOLD HARDY
 1948 FRANK CUSHING (*Boston Traveler*)
 1949 NAT FEIN (*New York Herald Tribune*)
 1950 BILL CROUCH (*Oakland Tribune*)
 1951 MAX DESFOR (Associated Press)
 1952 JOHN ROBINSON & DON ULTANG (*Des Moines Register & Tribune*)
 1953 WILLIAM M. GALLAGHER (*Flint* [Mich.] *Journal*)
 1954 MRS. WALTER M. SCHAU
 1955 JOHN L. GAUNT, JR. (*Los Angeles Times*)
 1956 *New York Daily News*
 1957 HARRY A. TRASK (*Boston Traveler*)
 1958 WILLIAM C. BEALL (*Washington Daily News*)

National Telegraphic Reporting

- 1942 LOUIS STARK (*New York Times*)
 1944 DEWEY L. FLEMING (*Baltimore Sun*)
 1945 JAMES B. RESTON (*New York Times*)
 1946 EDWARD A. HARRIS (*St. Louis Post-Dispatch*)
 1947 EDWARD T. FOLLIARD (*Washington* [D. C.] *Post*)

National Reporting

- 1948 BERT ANDREWS (*New York Herald Tribune*); NAT S. FINNEY (*Minneapolis Tribune*)
 1949 C. P. TRUSSELL (*New York Times*)
 1950 EDWIN O. GUTHMAN (*Seattle Times*)
 1952 ANTHONY LEVIERO (*New York Times*)
 1953 DON WHITEHEAD (Associated Press)
 1954 RICHARD WILSON (*Cowles Newspapers*)
 1955 ANTHONY LEWIS (*Washington Daily News*)
 1956 CHARLES L. BARTLETT (*Chattanooga Times*)
 1957 JAMES RESTON (*New York Times*)
 1958 RELMAN MORIN (Associated Press) and CLARK MOLLENHOFF (*Des Moines Register & Tribune*)

International Telegraphic Reporting

- 1942 LAURENCE EDMUND ALLEN (Associated Press)
 1943 IRA WOLFERT (North American Newspaper Alliance, Inc.)
 1944 DANIEL DE LUCE (Associated Press)
 1945 MARK S. WATSON (*Baltimore Sun*)
 1946 HOMER W. BIGART (*New York Herald Tribune*)
 1947 EDDY GILMORE (Associated Press)

International Reporting

- 1948 PAUL W. WARD (*Baltimore Sun*)
 1949 PRICE DAY (*Baltimore Sun*)
 1950 EDMUND STEVENS (*Christian Science Monitor*)
 1951 KEYES BEECH & FRED SPARKS (*Chicago Daily News*); HOMER BIGART & MARGUERITE HIGGINS (*New York Herald Tribune*); RELMAN MORIN & DON WHITEHEAD (Associated Press)
 1952 JOHN M. HIGHTOWER (Associated Press)
 1953 AUSTIN C. WEHRWEIN (*Milwaukee Journal*)
 1954 JIM G. LUCAS (Scripps-Howard Newspapers)
 1955 HARRISON E. SALISBURY (*New York Times*)
 1956 WILLIAM RANDOLPH HEARST, JR., & FRANK CONNIFF (Hearst newspapers) & KINGSBURY SMITH (INS)
 1957 RUSSELL JONES (United Press)
 1958 *New York Times*

Reporting

- 1917 HERBERT B. SWOPE (*New York World*)
- 1918 HAROLD A. LITTELDAL (*New York Evening Post*)
- 1920 JOHN J. LEARY, JR. (*New York World*)
- 1921 LOUIS SEIBOLD (*New York World*)
- 1922 KIRKE L. SIMPSON (Associated Press)
- 1923 ALVA JOHNSTON (*New York Times*)
- 1924 MAGNER WHITE (*San Diego Sun*)
- 1925 JAMES W. MULROY & ALVIN H. GOLDSTEIN (*Chicago Daily News*)
- 1926 WILLIAM BURKE MILLER (*Louisville Courier-Journal*)
- 1927 JOHN T. ROGERS (*St. Louis Post-Dispatch*)
- 1929 PAUL Y. ANDERSON (*St. Louis Post-Dispatch*)
- 1930 RUSSELL D. OWEN (*New York Times*); Special award: W. O. DAPPING (*Auburn [N. Y.] Citizen*)
- 1931 A. B. MACDONALD (*Kansas City [Mo.] Star*)
- 1932 W. C. RICHARDS, D. D. MARTIN, J. S. POOLER, F. D. WEBB, J. N. W. SLOAN (all of *Detroit Free Press*)
- 1933 FRANCIS A. JAMIESON (Associated Press)
- 1934 ROYCE BRIER (*San Francisco Chronicle*)
- 1935 WILLIAM H. TAYLOR (*New York Herald Tribune*)
- 1936 LAUREN D. LYMAN (*New York Times*)
- 1937 JOHN J. O'NEILL (*New York Herald Tribune*), WILLIAM LEONARD LAURENCE (*New York Times*), HOWARD W. BLAKESLEE (Associated Press), GOBIND BEHARILAL (Universal Service), DAVID DIETZ (Scripps-Howard Newspapers)
- 1938 RAYMOND SPRIGLE (*Pittsburgh Post-Gazette*)
- 1939 THOMAS L. STOKES (*New York World-Telegram*)
- 1940 S. BURTON HEATH (*New York World-Telegram*)
- 1941 WESTBROOK PEGLER (*New York World-Telegram*)
- 1942 STANTON DELAPLANE (*San Francisco Chronicle*)
- 1943 GEORGE WELLER (*Chicago Daily News*)
- 1944 PAUL SCHOENSTEIN & associates (*New York Journal-American*)
- 1945 JACK S. MCDOWELL (*San Francisco Call-Bulletin*)
- 1946 WILLIAM LEONARD LAURENCE (*New York Times*)
- 1947 FREDERICK WOLTMAN (*New York World-Telegram*)
- 1948 GEORGE E. GOODWIN (*Atlanta Journal*)
- 1949 MALCOLM JOHNSON (*New York Sun*)
- 1950 MEYER BERGER (*New York Times*)
- 1951 EDWARD S. MONTGOMERY (*San Francisco Examiner*)
- 1952 GEORGE DE CARVALHO (*San Francisco Chronicle*)
- 1953 Editorial staff (*Providence Journal & Evening Bulletin*);* EDWARD J. MOWERY (*New York World-Telegram & Sun*)†
- 1954 Vicksburg (Miss.) *Sunday Post-Herald*,* ALVIN SCOTT MCCOY (*Kansas City [Mo.] Star*)†
- 1955 MRS. CARO BROWN (Alice [Tex.] *Daily Echo*);* ROLAND KENNETH TOWERY (*Cuero [Tex.] Record*)†
- 1956 LEE HILLS (*Detroit Free Press*);* ARTHUR DALEY (*New York Times*)†
- 1957 Salt Lake Tribune,* WALLACE TURNER and WILLIAM LAMBERT (*Portland Oregonian*)†
- 1958 Fargo [N. Dak.] *Forum*;* GEORGE BEVERIDGE (*Washington Evening Star*)†
- Special Citations
- 1938 Edmonton [Alberta] *Journal*, special bronze plaque for editorial leadership in defense of freedom of press in Province of Alberta.
- 1941 *New York Times* for the public educational value of its foreign news report.
- * Reporting under pressure of edition deadlines. † Reporting not under pressure of edition deadlines.
- 1944 BYRON PRICE, Director of the Office of Censorship, for the creation and administration of the newspaper and radio codes. MRS. WILLIAM ALLEN WHITE, for her husband's interest and services during the past seven years as a member of the Advisory Board of the Graduate School of Journalism, Columbia University.
- 1945 The cartographers of the American press for their war maps.
- 1947 (Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, for their efforts to maintain and advance the high standards governing the Pulitzer Prize awards. The *St. Louis Post-Dispatch*, for its unswerving adherence to the public and professional ideals of its founder and its leadership in the field of American journalism.
- 1948 DR. FRANK D. FACKENTHAL, for his interest and service.
- 1951 CYRUS L. SULZBERGER (*New York Times*) for his exclusive interview with Archbishop Stepinac in a Yugoslav prison.
- 1952 *Kansas City Star* for coverage of 1951 floods; MAX KASE (*New York Journal-American*) for exposures of bribery in college basketball.
- 1953 *New York Times* for its 17-year publication of "News of the Week in Review."
- 1958 WALTER LIPPMANN (*New York Herald Tribune*) for his "wisdom, perception and high sense of responsibility" in his commentary on national and international affairs.

History of Services Rendered Public by American Press in Preceding Year

1918 MINNA LEWINSON, HENRY B. HOUGH

Pulitzer Prizes in Letters

Novel*

1918 *His Family*. By ERNEST POOLE

1919 *The Magnificent Ambersons*. By BOOTH TARKINGTON

1921 *The Age of Innocence*. By EDITH WHARTON

1922 *Alice Adams*. By BOOTH TARKINGTON

* Category changed to fiction for 1948 and thereafter. †

- 1923 *One of Ours.* By WILLA CATHER
1924 *The Able McLaughlins.* By MARGARET WILSON
1925 *So Big.* By EDNA FERBER
1926 *Arrowsmith.* By SINCLAIR LEWIS
1927 *Early Autumn.* By LOUIS BROMFIELD
1928 *The Bridge of San Luis Rey.* By THORNTON WILDER
1929 *Scarlet Sister Mary.* By JULIA PETERKIN
1930 *Laughing Boy.* By OLIVER LA FARGE
1931 *Years of Grace.* By MARGARET AYER BARNES
1932 *The Good Earth.* By PEARL S. BUCK
1933 *The Store.* By T. S. STRIBLING
1934 *Lamb in His Bosom.* By CAROLINE MILLER
1935 *Now in November.* By JOSEPHINE WINSLOW JOHNSON
1936 *Honey in the Horn.* By HAROLD L. DAVIS
1937 *Gone With the Wind.* By MARGARET MITCHELL
1938 *The Late George Apley.* By JOHN PHILLIPS MARQUAND
1939 *The Yearling.* By MARJORIE KINNAN RAWLINGS
1940 *The Grapes of Wrath.* By JOHN STEINBECK
1942 *In This Our Life.* By ELLEN GLASGOW
1943 *Dragon's Teeth.* By UPTON SINCLAIR
1944 *Journey in the Dark.* By MARTIN FLAVIN
1945 *A Bell for Adano.* By JOHN HERSEY
1947 *All the King's Men.* By ROBERT PENN WARREN
1948 *Tales of the South Pacific.* By JAMES A. MICHENER
1949 *Guard of Honor.* By JAMES GOULD COZZENS
1950 *The Way West.* By A. B. GUTHRIE, JR.
1951 *The Town.* By CONRAD RICHTER
1952 *The Caine Mutiny.* By HERMAN WOUK
1953 *The Old Man and the Sea.* By ERNEST HEMINGWAY
1955 *A Fable.* By WILLIAM FAULKNER
1956 *Andersonville.* By MACKINLAY KANTOR
1958 *A Death in the Family.* By JAMES AGEES
- Drama**
1918 *Why Marry?* By JESSE LYNCH WILLIAMS
1920 *Beyond the Horizon.* By EUGENE O'NEILL
1921 *Miss Lulu Bett.* By ZONA GALE
1922 *Anna Christie.* By EUGENE O'NEILL
1923 *Icebound.* By OWEN DAVIS
1924 *Hell-Bent Fer Heaven.* By HATCHER HUGHES
1925 *They Knew What They Wanted.* By SIDNEY HOWARD
1926 *Craig's Wife.* By GEORGE KELLY
1927 *In Abraham's Bosom.* By PAUL GREEN
1928 *Strange Interlude.* By EUGENE O'NEILL
1929 *Street Scene.* By ELMER L. RICE
1930 *The Green Pastures.* By MARC CONNELLY
1931 *Alison's House.* By SUSAN GLASPELL
1932 *Of Thee I Sing.* By GEORGE S. KAUFMAN, MORRIE RYSKIND & IRA GERSHWIN
1933 *Both Your Houses.* By MAXWELL ANDERSON
1934 *Men in White.* By SIDNEY KINGSLEY
1935 *The Old Maid.* By ZOË AKINS
1936 *Idiot's Delight.* By ROBERT E. SHERWOOD
1937 *You Can't Take It With You.* By MOSS HART and GEORGE S. KAUFMAN
1938 *Our Town.* By THORNTON WILDER
1939 *Abe Lincoln in Illinois.* By ROBERT E. SHERWOOD
1940 *The Time of Your Life.* By WILLIAM SAROYAN
1941 *There Shall Be No Night.* By ROBERT E. SHERWOOD
1943 *The Skin of Our Teeth.* By THORNTON WILDER
1945 *Harvey.* By MARY CHASE
1946 *State of the Union.* By RUSSEL CROUSE and HOWARD LINDSAY
1948 *A Streetcar Named Desire.* By TENNESSEE WILLIAMS
1949 *Death of a Salesman.* By ARTHUR MILLER
1950 *South Pacific.* By RICHARD RODGERS, OSCAR HAMMERSTEIN 2ND, and JOSHUA LOGAN
1952 *The Shrike.* By JOSEPH KRAMM
1953 *Picnic.* By WILLIAM INGE
1954 *The Teahouse of the August Moon.* By JOHN PATRICK
1955 *Cat on a Hot Tin Roof.* By TENNESSEE WILLIAMS
1956 *The Diary of Anne Frank.* By FRANCES GOODRICH & ALBERT HACKETT
- 1957 *Long Day's Journey Into Night.* By EUGENE O'NEILL
1958 *Look Homeward, Angel.* By KETTI FRINGS
- History**
1917 *With Americans of Past and Present Days.* By J. J. JUSSERAND, Amb. of France to U. S.
1918 *A History of the Civil War, 1861-1865.* By JAMES FORD RHODES
1920 *The War with Mexico.* By JUSTIN H. SMITH
1921 *The Victory at Sea.* By WILLIAM SOWDEN SIMS in collaboration with BURTON J. HENDRICK
1922 *The Founding of New England.* By JAMES TRUSLOW ADAMS
1923 *The Supreme Court in United States History.* By CHARLES WARREN
1924 *The American Revolution—A Constitutional Interpretation.* By CHARLES HOWARD McILWAIN
1925 *A History of the American Frontier.* By FREDERIC L. FAXSON
1926 *The History of the United States.* By EDWARD CHANNING
1927 *Pinckney's Treaty.* By SAMUEL FLAGG BEMIS
1928 *Main Currents in American Thought.* By VERNON LOUIS FARRINGTON
1929 *The Organization and Administration of the Union Army, 1861-1865.* By FRED ALBERT SHANNON
1930 *The War of Independence.* By CLAUDE H. VAN TYNE
1931 *The Coming of the War: 1914.* By BERNADOTTE E. SCHMITT
1932 *My Experiences in the World War.* By JOHN J. PERSHING
1933 *The Significance of Sections in American History.* By FREDERICK J. TURNER
1934 *The People's Choice.* By HERBERT AGAR
1935 *The Colonial Period of American History.* By CHARLES MCLEAN ANDREWS
1936 *The Constitutional History of the United States.* By ANDREW C. McLAUGHLIN

- 1937 *The Flowering of New England*. By VAN WYCK BROOKS
- 1938 *The Road to Revnion, 1865-1900*. By PAUL HERMAN BUCK
- 1939 *A History of American Magazines*. By FRANK LUTHER MOTT
- 1940 *Abraham Lincoln: The War Years*. By CARL SANDBURG
- 1941 *The Atlantic Migration, 1607-1860*. By MARCUS LEE HANSEN
- 1942 *Reveille in Washington*. By MARGARET LEECH
- 1943 *Paul Revere and the World He Lived In*. By ESTHER FORBES
- 1944 *The Growth of American Thought*. By MERLE CURTI
- 1945 *Unfinished Business*. By STEPHEN BONSAI
- 1946 *The Age of Jackson*. By ARTHUR M. SCHLESINGER, JR.
- 1947 *Scientists Against Time*. By JAMES PHINNEY BAXTER, 3RD
- 1948 *Across the Wide Missouri*. By BERNARD DEVOTO
- 1949 *The Disruption of American Democracy*. By ROY FRANKLIN NICHOLS
- 1950 *Art and Life in America*. By OLIVER W. LARKIN
- 1951 *The Old Northwest, Pioneer Period 1815-1840*. By R. CARLYLE BULEY
- 1952 *The Uprooted*. By OSCAR HANDLIN
- 1953 *The Era of Good Feelings*. By GEORGE DAN-GERFIELD
- 1954 *A Stillness at Appomattox*. By BRUCE CATTON
- 1955 *Great River: The Rio Grande in North American History*. By PAUL HORGAN
- 1956 *The Age of Reform*. By RICHARD HOFSTADTER
- 1957 *Russia Leaves the War: Soviet-American Relations, 1917-1920*. By GEORGE F. KENNAN
- 1958 *Banks and Politics in America: From the Revolution to the Civil War*. By BRAY HAMMOND
- Biography or Autobiography**
- 1917 *Julia Ward Howe*. By LAURA E. RICHARDS and MAUDE HOWE ELLIOTT
- assisted by FLORENCE HOWE HALL
- 1918 *Benjamin Franklin, Self-Revealed*. By WILLIAM CABELL BRUCE
- 1919 *The Education of Henry Adams*. By HENRY ADAMS
- 1920 *The Life of John Marshall*. By ALBERT J. BEVERIDGE
- 1921 *The Americanization of Edward Bok*. By EDWARD BOK
- 1922 *A Daughter of the Middle Border*. By HAMLIN GARLAND
- 1923 *The Life and Letters of Walter H. Page*. By BURTON J. HENDRICK
- 1924 *From Immigrant to Inventor*. By MICHAEL IDVORSKY PUPIN
- 1925 *Barrett Wendell and His Letters*. By M. A. DEWOLFE HOWE
- 1926 *The Life of Sir William Osler*. By HARVEY CUSHING
- 1927 *Whitman*. By EMORY HOLLOWAY
- 1928 *The American Orchestra and Theodore Thomas*. By CHARLES EDWARD RUSSELL
- 1929 *The Training of an American. The Earlier Life and Letters of Walter H. Page*. By BURTON J. HENDRICK
- 1930 *The Raven*. By MARQUIS JAMES
- 1931 *Charles W. Eliot*. By HENRY JAMES
- 1932 *Theodore Roosevelt*. By HENRY F. PRINGLE
- 1933 *Grover Cleveland*. By ALLAN NEVINS
- 1934 *John Hay*. By TYLER DENNETT
- 1935 *R. E. Lee*. By DOUGLAS S. FREEMAN
- 1936 *The Thought and Character of William James*. By RALPH BARTON PERRY
- 1937 *Hamilton Fish*. By ALLAN NEVINS
- 1938 *Pedlar's Progress*. By ODELL SHEPARD. Andrew Jackson. By MARQUIS JAMES
- 1939 *Benjamin Franklin*. By CARL VAN DOREN
- 1940 *Woodrow Wilson. Life and Letters*. Vols. VII and VIII. By RAY STANNARD BAKER
- 1941 *Jonathan Edwards*. By OLA ELIZABETH WINSLOW
- 1942 *Crusader in Crinoline*. By FORREST WILSON
- 1943 *Admiral of the Ocean Sea*. By SAMUEL ELIOT MORISON
- 1944 *The American Leonardo: The Life of Samuel F. B. Morse*. By CARLETON MABEE
- 1945 *George Bancroft: Brahmin Rebel*. By RUSSEL BLAINE NYE
- 1946 *Son of the Wilderness*. By LINNIE MARSH WOLFE
- 1947 *The Autobiography of William Allen White*
- 1948 *Forgotten First Citizen: John Bigelow*. By MARGARET CLAPP
- 1949 *Roosevelt and Hopkins*. By ROBERT E. SHERWOOD
- 1950 *John Quincy Adams and the Foundations of American Foreign Policy*. By SAMUEL FLAGG BEMIS
- 1951 *John C. Calhoun: American Portrait*. By MARGARET LOUISE COIT
- 1952 *Charles Evans Hughes*. By MERLO J. PUSEY
- 1953 *Edmund Pendleton 1721-1803*. By DAVID J. MAYES
- 1954 *The Spirit of St. Louis*. By CHARLES A. LINDBERGH
- 1955 *The Taft Story*. By WILLIAM S. WHITE
- 1956 *Benjamin Henry Latrobe*. By TALBOT F. HAMLIN
- 1957 *Profiles in Courage*. By JOHN F. KENNEDY
- 1958 *George Washington*. By DOUGLAS SOUTHALL FREEMAN (Vols. 1-6) and JOHN ALEXANDER CARROLL and MARY WELLS ASHWORTH (Vol. 7)
- Poetry**
- 1918* *Love Songs*. By SARA TEASDALE
- 1919* *Old Road to Paradise*. By MARGARET WIDDEMER
- Corn Huskers*. By CARL SANDBURG
- 1922 *Collected Poems*. By EDWIN ARLINGTON ROBINSON
- 1923 *The Ballad of the Harp-Weaver; A Few Figs from Thistles*; eight sonnets in *American Poetry, 1922, A Miscellany*. By EDNA ST. VINCENT MILLAY
- 1924 *New Hampshire: A Poem with Notes and Grace Notes*. By ROBERT FROST

* Previous to the establishment of this prize in 1922, the 1918 and 1919 awards were made from gifts provided by the Poetry Society.

- 1925 *The Man Who Died Twice*. By EDWIN ARLINGTON ROBINSON
- 1926 *What's O'Clock*. By AMY LOWELL
- 1927 *Fiddler's Farewell*. By LEONORA SPEYER
- 1928 *Tristram*. By EDWIN ARLINGTON ROBINSON
- 1929 *John Brown's Body*. By STEPHEN VINCENT BENÉT
- 1930 *Selected Poems*. By CONRAD AIKEN
- 1931 *Collected Poems*. By ROBERT FROST
- 1932 *The Flowering Stone*. By GEORGE DILLON
- 1933 *Conquistador*. By ARCHIBALD MACLEISH
- 1934 *Collected Verse*. By ROBERT HILLYER
- 1935 *Bright Ambush*. By AUDREY WURDEMAN
- 1936 *Strange Holiness*. By ROBERT P. TRISTRAM COFFIN
- 1937 *A Further Range*. By ROBERT FROST
- 1938 *Cold Morning Sky*. By MARYA ZATURENSKA
- 1939 *Selected Poems*. By JOHN GOULD FLETCHER
- 1940 *Collected Poems*. By MARK VAN DOREN
- 1941 *Sunderland Capture*. By LEONARD BACON
- 1942 *The Dust Which Is God*. By WILLIAM ROSE BENÉT
- 1943 *A Witness Tree*. By ROBERT FROST
- 1944 *Western Star*. By STEPHEN VINCENT BENÉT
- 1945 *V-Letter and Other Poems*. By KARL SHAPIRO
- 1947 *Lord Weary's Castle*. By ROBERT LOWELL
- 1948 *The Age of Anxiety*. By W. H. AUDEN
- 1949 *Terror and Decorum*. By PETER VIERECK
- 1950 *Annie Allen*. By GWENDOLYN BROOKS
- 1951 *Complete Poems*. By CARL SANDEBURG
- 1952 *Collected Poems*. By MARIANNE MOORE
- 1953 *Collected Poems 1917-1952*. By ARCHIBALD MACLEISH
- 1954 *The Waking*. By THEODORE ROETHKE
- 1955 *Collected Poems*. By WALLACE STEVENS
- 1956 *Poems—North & South*. By ELIZABETH BISHOP
- 1957 *Things of This World*. By RICHARD WILBUR
- 1958 *Promises: Poems 1954-1956*. By ROBERT PENN WARREN
- Special Citations
- 1944 *Oklahoma!* By RICHARD RODGERS and OSCAR HAMMERSTEIN 2ND
- 1957 KENNETH ROBERTS, for his historical novels.

Pulitzer Prizes in Music

- 1943 *Secular Cantata No. 2, A Free Song*. By WILLIAM SCHUMAN
- 1944 *Symphony No. 4 (Op. 34)*. By HOWARD HANSON
- 1945 *Appalachian Spring*. By AARON COPLAND
- 1946 *The Canticle of the Sun*. By LEO SOWERBY
- 1947 *Symphony No. 3*. By CHARLES IVES
- 1948 *Symphony No. 3*. By WALTER PISTON
- 1949 *Louisiana Story* music. By VIRGIL THOMSON
- 1950 *The Consul*. By GIAN-CARLO MENOTTI
- 1951 *Music for opera Giants in the Earth*. By DOUGLAS STUART MOORE
- 1952 *Symphony Concertante*. By GAIL KUBIK
- 1954 *Concerto for Two Pianos and Orchestra*. By QUINCY PORTER
- 1955 *The Saint of Bleecker Street*. By GIAN-CARLO MENOTTI
- 1956 *Symphony No. 3*. By ERNST TOCH
- 1957 *Meditations on Ecclesiastes*. By NORMAN DELLO JOIO
- 1958 *Vanessa*. By SAMUEL BARBER

Overseas Press Club of America Awards, 1957

Class 1. Best press reporting daily or wire from abroad: Bob Considine, Frank Conniff and William Randolph Hearst, Jr., Hearst Newspapers.

Class 2. Best radio or television reporting from abroad: Frank Kearns and Yussef Masraff, CBS News.

Class 3. Best photographic reporting, still or motion picture, from abroad: Lisa Larsen, free lance (published in *Life*).

Class 4. Best magazine reporting of foreign affairs: James Michener, *Reader's Digest*.

Class 5. Best American press interpretation of

foreign affairs: Ernest K. Lindley, *Newsweek*.

Class 6. Best American radio or television interpretation of foreign affairs: Chet Huntley, NBC.

Class 7. Best book on foreign affairs: David Schoenbrun, CBS (Harper's).

Class 8. The Robert Capa Award: No award given.

Class 9. The George Polk Award: Herbert L. Matthews, *New York Times*.

Class 10. The President's Award: No award given.

List of Motion Picture Academy Awards

PRODUCTION

- 1928 *Wings*, Paramount
- 1929 *The Broadway Melody*, M-G-M
- 1930 *All Quiet on the Western Front*, Universal
- 1931 *Cimarron*, RKO Radio
- 1932 *Grand Hotel*, M-G-M
- 1933 *Cavalcade*, Fox
- 1934 *It Happened One Night*, Columbia
- 1935 *Mutiny on the Bounty*, M-G-M

DIRECTOR AND MOVIE

- Frank Borzage, *Seventh Heaven*;
Lewis Milestone, *Two Arabian Nights*
Frank Lloyd, *The Divine Lady*
Lewis Milestone, *All Quiet on the Western Front*
Norman Taurog, *Skippy*
Frank Borzage, *Bad Girl*
Frank Lloyd, *Cavalcade*
Frank Capra, *It Happened One Night*
John Ford, *The Informer*

- 1936 *The Great Ziegfeld*, M-G-M
 1937 *The Life of Emile Zola*, Warner
 1938 *You Can't Take It With You*, Columbia
 1939 *Gone With the Wind*, Selznick-M-G-M
 1940 *Rebecca*, Selznick-UA
 1941 *How Green Was My Valley*, 20th Century-Fox
 1942 *Mrs. Miniver*, M-G-M
 1943 *Casablanca*, Warner Bros.
 1944 *Going My Way*, Paramount
 1945 *The Lost Weekend*, Paramount
 1946 *The Best Years of Our Lives*, Goldwyn-RKO Radio
 1947 *Gentleman's Agreement*, 20th Century-Fox
 1948 *Hamlet*, Rank-Two Cities-U-I
 1949 *All the King's Men*, Rossen-Columbia
 1950 *All About Eve*, 20th Century-Fox
 1951 *An American in Paris*, M-G-M
 1952 *The Greatest Show on Earth*, Paramount
 1953 *From Here to Eternity*, Columbia
 1954 *On the Waterfront*, Columbia
 1955 *Marty*, United Artists
 1956 *Around the World in 80 Days*, the Michael Todd Co., Inc.-UA
 1957 *The Bridge on the River Kwai*, Columbia

ACTRESS AND MOVIE

- 1928 Janet Gaynor, *Seventh Heaven*, *Street Angel*, *Sunrise*
 1929 Mary Pickford, *Coquette*
 1930 Norma Shearer, *The Divorcee*
 1931 Marie Dressler, *Min and Bill*
 1932 Helen Hayes, *The Sin of Madelon Claudet*
 1933 Katharine Hepburn, *Morning Glory*
 1934 Claudette Colbert, *It Happened One Night*
 1935 Bette Davis, *Dangerous*
 1936 Luise Rainer, *The Great Ziegfeld*
 1937 Luise Rainer, *The Good Earth*
 1938 Bette Davis, *Jezebel*
 1939 Vivien Leigh, *Gone With the Wind*
 1940 Ginger Rogers, *Kitty Foyle*
 1941 Joan Fontaine, *Suspicion*
 1942 Greer Garson, *Mrs. Miniver*
 1943 Jennifer Jones, *The Song of Bernadette*
 1944 Ingrid Bergman, *Gaslight*
 1945 Joan Crawford, *Mildred Pierce*
 1946 Olivia de Havilland, *To Each His Own*
 1947 Loretta Young, *Farmer's Daughter*
 1948 Jane Wyman, *Johnny Belinda*
 1949 Olivia de Havilland, *The Heiress*
 1950 Judy Holliday, *Born Yesterday*
 1951 Vivien Leigh, *A Streetcar Named Desire*
 1952 Shirley Booth, *Come Back, Little Sheba*
 1953 Audrey Hepburn, *Roman Holiday*
 1954 Grace Kelly, *Country Girl*
 1955 Anna Magnani, *The Rose Tattoo*
 1956 Ingrid Bergman, *Anastasia*
 1957 Joanne Woodward, *The Three Faces of Eve*

ACTRESS (SUPPORTING ROLE)

- 1936 Gale Sondergaard, *Anthony Adverse*
 1937 Alice Brady, *In Old Chicago*
 1938 Fay Bainter, *Jezebel*
 1939 Hattie McDaniel, *Gone With the Wind*

- Frank Capra, *Mr. Deeds Goes to Town*
 Leo McCarey, *The Awful Truth*
 Frank Capra, *You Can't Take It With You*
 Victor Fleming, *Gone With the Wind*
 John Ford, *The Grapes of Wrath*
 John Ford, *How Green Was My Valley*

- William Wyler, *Mrs. Miniver*
 Michael Curtiz, *Casablanca*
 Leo McCarey, *Going My Way*
 Billy Wilder, *The Lost Weekend*
 William Wyler, *The Best Years of Our Lives*

- Elia Kazan, *Gentleman's Agreement*

- John Huston, *Treasure of Sierra Madre*
 Joseph L. Mankiewicz, *A Letter to Three Wives*
 Joseph L. Mankiewicz, *All About Eve*
 George Stevens, *A Place in the Sun*
 John Ford, *The Quiet Man*

- Fred Zinnemann, *From Here to Eternity*
 Elia Kazan, *On the Waterfront*
 Delbert Mann, *Marty*
 George Stevens, *Giant*

- David Lean, *The Bridge on the River Kwai*

ACTOR AND MOVIE

- Emil Jannings, *The Way of All Flesh*, *The Last Command*
 Warner Baxter, *In Old Arizona*
 George Arliss, *Disraeli*
 Lionel Barrymore, *A Free Soul*
 Fredric March, *Dr. Jekyll and Mr. Hyde*, and *Wallace Beery, The Champ*
 Charles Laughton, *The Private Life of Henry VIII*
 Clark Gable, *It Happened One Night*
 Victor McLaglen, *The Informer*
 Paul Muni, *The Story of Louis Pasteur*
 Spencer Tracy, *Captains Courageous*
 Spencer Tracy, *Boys Town*
 Robert Donat, *Goodbye, Mr. Chips*
 James Stewart, *The Philadelphia Story*
 Gary Cooper, *Sergeant York*
 James Cagney, *Yankee Doodle Dandy*
 Paul Lukas, *Watch on the Rhine*

- Bing Crosby, *Going My Way*
 Ray Milland, *The Lost Weekend*
 Fredric March, *The Best Years of Our Lives*
 Ronald Colman, *A Double Life*
 Sir Laurence Olivier, *Hamlet*
 Broderick Crawford, *All the King's Men*
 Jose Ferrer, *Cyrano de Bergerac*
 Humphrey Bogart, *The African Queen*

- Gary Cooper, *High Noon*
 William Holden, *Stalag 17*
 Marlon Brando, *On the Waterfront*
 Ernest Borgnine, *Marty*
 Yul Brynner, *The King and I*
 Alec Guinness, *The Bridge on the River Kwai*

ACTOR (SUPPORTING ROLE)

- Walter Brennan, *Come and Get It*
 Joseph Schildkraut, *The Life of Emile Zola*
 Walter Brennan, *Kentucky*
 Thomas Mitchell, *Stagecoach*

1940 Jane Darwell, *The Grapes of Wrath*
 1941 Mary Astor, *The Great Lie*
 1942 Teresa Wright, *Mrs. Miniver*
 1943 Katina Paxinou, *For Whom the Bell Tolls*
 1944 Ethel Barrymore, *None But the Lonely Heart*
 1945 Anne Revere, *National Velvet*
 1946 Anne Baxter, *The Razor's Edge*
 1947 Celeste Holm, *Gentleman's Agreement*
 1948 Claire Trevor, *Key Largo*
 1949 Mercedes McCambridge, *All the King's Men*
 1950 Josephine Hull, *Harvey*
 1951 Kim Hunter, *A Streetcar Named Desire*
 1952 Gloria Grahame, *The Bad and the Beautiful*
 1953 Donna Reed, *From Here to Eternity*
 1954 Eva Marie Saint, *On the Waterfront*
 1955 Jo Van Fleet, *East of Eden*
 1956 Dorothy Malone, *Written on the Wind*
 1957 Miyoshi Umeki, *Sayonara*

Walter Brennan, *The Westerner*
 Donald Crisp, *How Green Was My Valley*
 Van Heflin, *Johnny Eager*
 Charles Coburn, *The More the Merrier*

Barry Fitzgerald, *Going My Way*

James Dunn, *A Tree Grows in Brooklyn*
 Harold Russell, *The Best Years of Our Lives*
 Edmund Gwenn, *Miracle on 34th Street*
 Walter Huston, *The Treasure of Sierra Madre*
 Dean Jagger, *Twelve O'Clock High*

George Sanders, *All About Eve*
 Karl Malden, *A Streetcar Named Desire*

Anthony Quinn, *Viva Zapata!*

Frank Sinatra, *From Here to Eternity*
 Edmond O'Brien, *The Barefoot Contessa*
 Jack Lemmon, *Mister Roberts*
 Anthony Quinn, *Lust for Life*
 Red Buttons, *Sayonara*

Some Other Academy Awards for 1957

Art direction: *Sayonara*. Art direction: Ted Haworth; set decoration: Robert Priestley.
 Cinematography: Jack Hildyard, *The Bridge on the River Kwai*.

Costume design: Orry Kelly, *Les Girls*.

Documentary (feature): Albert Schweitzer, Jerome Hill, producer.

Film editing: Peter Taylor, *The Bridge on the River Kwai*.

Foreign-language film: *The Nights of Cabiria* (Italian).

Jean Hersholt Humanitarian Award: Samuel Goldwyn.

Music scoring: Malcolm Arnold, *The Bridge on the River Kwai*.

Music (song): "All the Way," from *The Joker* is *Wild*. Music by James Van Heusen; lyrics by Sammy Cahn.

Short subject (cartoon): *Birds Anonymous*, Warner Bros.

Short subject (live action): *The Wetback Hound*, Walt Disney Productions.

Sound recording: *Sayonara*, Warner Bros. Studio Sound Dept.

Special effects: Walter Rossi, *The Enemy Below*.

Writing (screenplay based on material from another medium): Pierre Boule, *The Bridge on the River Kwai*.

Writing (story and screenplay written directly for screen): George Wells, *Designing Woman*.

New York Film Critics' Awards

(1—best motion picture; 2—best male performance; 3—best feminine performance; 4—best direction; 5—best foreign film; 6—special award.)

1940 1. *The Grapes of Wrath*, 20th Century-Fox
 2. Charles Chaplin, *The Great Dictator* (refused award)
 3. Katharine Hepburn, *The Philadelphia Story*
 4. John Ford, *The Grapes of Wrath*
 5. *The Baker's Wife* (French)

1941 1. *Citizen Kane*, RKO-Mercury
 2. Gary Cooper, *Sergeant York*
 3. Joan Fontaine, *Suspicion*
 4. John Ford, *How Green Was My Valley*

1942 1. *In Which We Serve*, UA-Noel Coward
 2. James Cagney, *Yankee Doodle Dandy*

3. Agnes Moorehead, *The Magnificent Ambersons*
 4. John Farrow, *Wake Island*

1943 1. *Watch on the Rhine*, Warner Bros.
 2. Paul Lukas, *Watch on the Rhine*
 3. Ida Lupino, *The Hard Way*
 4. George Stevens, *The More the Merrier*

1944 1. *Going My Way*, Paramount
 2. Barry Fitzgerald, *Going My Way*
 3. Tallulah Bankhead, *Lifeboat*
 4. Leo McCarey, *Going My Way*

1945 1. *The Lost Weekend*, Paramount

2. Ray Milland, *The Lost Weekend*

3. Ingrid Bergman, *Spellbound* and *The Bells of St. Mary's*

4. Billy Wilder, *The Lost Weekend*

5. (None)
 6. *The True Glory* and *The Fighting Lady*

1946 1. *The Best Years of Our Lives*, Goldwyn-RKO Radio

2. Laurence Olivier, *Henry V*

3. Celia Johnson, *Brief Encounter*

4. William Wyler, *The Best Years of Our Lives*

5. *Open City* (Italian)

1947 1. *Gentleman's Agreement*, 20th Century-Fox

2. William Powell, *Life With Father*
 3. Deborah Kerr, *The Adventuress and Black Narcissus*
 4. Ella Kazan, *Gentleman's Agreement and Boomerang*
 5. *To Live in Peace* (Italian)
- 1948 1. *Treasure of Sierra Madre*, Warner Bros.
 2. Sir Laurence Olivier, *Hamlet*
 3. Olivia de Havilland, *The Snake Pit*
 4. John Huston, *Treasure of Sierra Madre*
 5. *Paizan* (Italian)
- 1949 1. *All the King's Men*, Rossen-Columbia
 2. Broderick Crawford, *All the King's Men*
 3. Olivia de Havilland, *The Heiress*
 4. Carol Reed, *The Fallen Idol*
 5. *The Bicycle Thief* (Italian)
- 1950 1. *All About Eve*, 20th Century-Fox
 2. Gregory Peck, *Twelve O'Clock High*
 3. Bette Davis, *All About Eve*
 4. Joseph L. Mankiewicz, *All About Eve*
 5. *Ways of Love* (Franco-Italian)
- 1951 1. *A Streetcar Named Desire*, Warner Bros.
 2. Arthur Kennedy, *Bright Victory*
 3. Vivien Leigh, *A Streetcar Named Desire*
 4. Ella Kazan, *A Streetcar Named Desire*
 5. *Miracle in Milan* (Italian)
- 1952 1. *High Noon*, United Artists
 2. Ralph Richardson, *Breaking the Sound Barrier*
 3. Shirley Booth, *Come Back, Little Sheba*
 4. Fred Zinnemann, *High Noon*
 5. *Forbidden Games* (French)
- 1953 1. *From Here to Eternity*, Columbia
 2. Burt Lancaster, *From Here to Eternity*
 3. Audrey Hepburn, *Roman Holiday*
 4. Fred Zinnemann, *From Here to Eternity*
 5. *Justice Is Done* (French)
 6. *A Queen Is Crowned* (JARO) and *The Conquest of Everest* (JARO)
- 1954 1. *On the Waterfront*, Columbia
 2. Marlon Brando, *On the Waterfront*
- 1955 1. *Marty*, United Artists
 2. Ernest Borgnine, *Marty*
 3. Anna Magnani, *The Rose Tattoo*
 4. David Lean, *Summer-time*
 5. *Diabolique* (French) and *Umberto D.* (Italian)
- 1956 1. *Around the World in 80 Days*, The Michael Todd Co., Inc., UA
 2. Kirk Douglas, *Lust For Life*
 3. Ingrid Bergman, *Anastasia*
 4. John Huston, *Moby Dick*
 5. *La Strada* (Italian)
- 1957 1. *The Bridge on the River Kwai*, Columbia
 2. Alec Guinness, *The Bridge on the River Kwai*
 3. Deborah Kerr, *Heaven Knows, Mr. Allison*
 4. David Lean, *The Bridge on the River Kwai*
 5. *Gervaise* (French)

New York Drama Critics' Circle Awards

- 1935-36 *Winterset*, by Maxwell Anderson
 1936-37 *High Tor*, by Maxwell Anderson
 1937-38 *Of Mice and Men*, by John Steinbeck
Shadow and Substance, by Paul Vincent Carroll¹
 1938-39 (No award)
The White Steed, by Paul Vincent Carroll¹
 1939-40 *The Time of Your Life*, by William Saroyan
 1940-41 *Watch on the Rhine*, by Lillian Hellman
The Corn Is Green, by Emlyn Williams¹
 1941-42 (No award)
Blithe Spirit, by Noel Coward¹
 1942-43 *The Patriots*, by Sidney Kingsley
- 1943-44 (No award)
Jacobowsky and the Colonel, by Franz Werfel-S. N. Behrman¹
 1944-45 *The Glass Menagerie*, by Tennessee Williams
 1945-46 (No award)
Carousel, by Richard Rodgers & Oscar Hammerstein II²
 1946-47 *All My Sons*, by Arthur Miller
No Exit, by Jean-Paul Sartre¹
Brigadoon, by Lerner and Loewe²
 1947-48 *A Streetcar Named Desire*, by Tennessee Williams
The Winslow Boy, by Terence Rattigan¹
 1948-49 *Death of a Salesman*, by Arthur Miller
The Madwoman of Chailot, by Jean Giraudoux - Maurice Valency¹
- South Pacific*, by Richard Rodgers, Oscar Hammerstein II & Joshua Logan²
 1949-50 *The Member of the Wedding*, by Carson McCullers
The Cocktail Party, by T. S. Eliot¹
The Consul, by Gian-Carlo Menotti²
 1950-51 *Darkness at Noon*, by Sidney Kingsley³
The Lady's Not for Burning, by Christopher Fry¹
Guys and Dolls, by Abe Burrows, Jo Swerling & Frank Loesser²
 1951-52 *I Am a Camera*, by John Van Druten⁴
Venus Observed, by Christopher Fry¹
Pal Joey, by Richard Rodgers, Lorenz Hart & John O'Hara³
Don Juan in Hell, by George B. Shaw⁵

1952-53 <i>Picnic</i> , by William Inge	1954-55 <i>Cat on a Hot Tin Roof</i> , by Tennessee Williams	<i>My Fair Lady</i> , by Fred-erick Loewe & Alan Jay Lerner ¹
<i>The Love of Four Col- onels</i> , by Peter Us- tinov ¹	<i>Witness for the Prose- cution</i> , by Agatha Christie ¹	1956-57 <i>Long Day's Journey Into Night</i> , by Eugene O'Neill
<i>Wonderful Town</i> , by Joseph Fields, Jer- ome Chodorov, Betty Comden, Adolph Green & Leonard Bernstein ²	<i>The Saint of Bleecker Street</i> , by Glan- Carlo Menotti ²	<i>Waltz of the Torea- dors</i> , by Jean Anouilh ¹
1953-54 <i>The Teahouse of the August Moon</i> , by John Patrick	1955-56 <i>The Diary of Anne Frank</i> , by Frances Goodrich & Albert Hackett	<i>The Most Happy Fella</i> , by Frank Loesser ^{2, 6}
<i>Ondine</i> , by Jean Gir- audoux ¹	<i>Tiger at the Gates</i> , by Jean Giraudoux- Christopher Fry ¹	1957-58 <i>Look Homeward, An- gel</i> , by Ketti Frings ⁷
<i>The Golden Apple</i> , by John Latouche & Jerome Moross ²		<i>Look Back in Anger</i> , by John Osborne ¹
		<i>The Music Man</i> , by Meredith Willson ²

¹ Citation for best foreign play. ² Citation for best musical. ³ Based on a novel by Arthur Koestler. ⁴ Based on Christopher Isherwood's *Berlin Stories*. ⁵ For "distinguished and original contribution to the theater." ⁶ Based on Sidney Howard's *They Knew What They Wanted*. ⁷ Based on a novel by Thomas Wolfe.

The Hall of Fame for Great Americans

The Hall of Fame for Great Americans, established in 1900 on the campus of New York University, is an open-air colonnade with busts and tablets for 85 of the 86 persons so far honored for national achievements. New names are voted on every five years by a College of Electors of about 100 eminent men and women from all the states. To be elected to the Hall of Fame, an individual must have been dead more than 25 years (before 1922, the stipulation was 10 years), must have been a citizen of the U. S., and must receive a majority vote. Nominations may be made by any citizen. The next election will be held in 1960. Nominations open April 1, 1959.

Names	Elected	Names	Elected
John Adams (statesman)	1900	James Kent (jurist)	1900
John Quincy Adams (statesman)	1905	Sidney Lanier (poet)	1945
Louis Agassiz (naturalist)	1915	Robert E. Lee (military officer)	1900
Susan B. Anthony (reformer)	1950	Abraham Lincoln (statesman)	1900
John James Audubon (naturalist)	1900	Henry W. Longfellow (poet)	1900
George Bancroft (historian)	1910	James Russell Lowell (poet)	1905
Henry Ward Beecher (clergyman)	1900	Mary Lyon (educator)	1905
Alexander Graham Bell (inventor)	1950	James Madison (statesman)	1905
Daniel Boone (explorer)	1915	Horace Mann (educator)	1900
Edwin Booth (actor)	1925	John Marshall (jurist)	1900
Phillips Brooks (clergyman)	1910	Matthew F. Maury (oceanographer)	1930
William Cullen Bryant (poet)	1910	Maria Mitchell (astronomer)	1905
William Ellery Channing (clergyman)	1900	James Monroe (statesman)	1930
Rufus Choate (lawyer)	1915	Samuel F. B. Morse (inventor)	1900
Henry Clay (statesman)	1900	William T. G. Morton (dentist)	1920
Samuel L. Clemens (author)	1920	John Lothrop Motley (historian)	1910
Grover Cleveland (statesman)	1935	Simon Newcomb (astronomer)	1935
James Fenimore Cooper (author)	1910	Thomas Paine (author)	1945
Peter Cooper (philanthropist)	1900	Alice Freeman Palmer (educator)	1920
Charlotte S. Cushman (actress)	1915	Francis Parkman (historian)	1915
James Buchanan Eads (engineer)	1920	George Peabody (philanthropist)	1900
Jonathan Edwards (clergyman)	1900	William Penn (colonizer)	1935
Ralph Waldo Emerson (author)	1900	Edgar Allan Poe (author)	1910
David G. Farragut (naval officer)	1900	Walter Reed (surgeon)	1945
Stephen C. Foster (song composer)	1940	Theodore Roosevelt (statesman)	1950
Benjamin Franklin (statesman)	1900	Augustus Saint-Gaudens (sculptor)	1920
Robert Fulton (inventor)	1900	William T. Sherman (army officer)	1905
Josiah Willard Gibbs (physicist)	1950	Joseph Story (jurist)	1900
William Crawford Gorgas (physician)	1950	Harriet Beecher Stowe (author)	1910
Ulysses S. Grant (statesman)	1900	Gilbert Charles Stuart (painter)	1900
Asa Gray (botanist)	1900	Booker T. Washington (educator)	1945
Alexander Hamilton (statesman)	1915	George Washington (statesman)	1900
Nathaniel Hawthorne (author)	1900	Daniel Webster (statesman)	1900
Joseph Henry (physicist)	1915	George Westinghouse (inventor)	1955
Patrick Henry (statesman)	1920	J. A. McNeill Whistler (painter)	1930
Oliver Wendell Holmes (author)	1910	Walt Whitman (poet)	1930
Mark Hopkins (educator)	1915	El Whitney (inventor)	1900
Elias Howe (inventor)	1915	John Greenleaf Whittier (poet)	1905
Washington Irving (author)	1900	Emma Willard (educator)	1905
Andrew Jackson (statesman)	1910	Frances Elizabeth Willard (reformer)	1910
Thomas ("Stonewall") Jackson (military officer)	1955	Roger Williams (clergyman)	1920
Thomas Jefferson (statesman)	1900	Woodrow Wilson (statesman)	1950
John Paul Jones (naval officer)	1925	Wilbur Wright* (inventor)	1955

* Not yet represented by a bust and tablet.

AVIATION



Famous Firsts in Aviation

- 1782—First balloon flight. Jacques and Joseph Montgolfier of Annonay, Fr., sent up a small smoke-filled balloon about mid-November.
- 1783—First hydrogen-filled balloon flight. Jacques A. C. Charles, Paris physicist, supervised construction by A. J. and M. N. Robert of a 13-ft. diameter balloon which was filled with hydrogen. It got up to about 3,000 ft. and traveled about 16 mi. in a 45-min. flight (Aug. 27).
- 1783—First human balloon flights. A Frenchman, Jean Pilâtre de Rozier, made the first captive balloon ascension (Oct. 15). With the Marquis d'Arlandes, Pilâtre de Rozier made the first free flight, reaching a peak altitude of about 500 ft., and traveling about 5½ mi. in 20 min. (Nov. 21).
- 1784—First powered balloon. Gen. Jean Baptiste Marie Meusnier developed the first propeller-driven and elliptically-shaped balloon—the crew cranking three propellers on a common shaft to give the craft a speed of about 3 mi. per hr.
- 1784—First woman to fly. Mme. Thible, a French opera singer (June 4).
- 1793—First balloon flight in America. Jean Pierre Blanchard, a French pilot, made it from Philadelphia to near Woodbury, Gloucester Co., N. J., in a little over 45 min. (Jan. 9).
- 1794—First military use of the balloon. Jean Marie Coutelle, using a balloon built for the French Army, made two 4 hr. observation ascents. The military value of the ascents seems to have been in damage to the enemy's morale.
- 1797—First parachute jump. André-Jacques Garnerin dropped from about 6,500 ft. over Moneau Park in Paris in a 23-ft. diameter 'chute made of white canvas with a basket attached (Oct. 22).
- 1843—First air transport company. In London, William S. Henson and John Stringfellow filed articles of incorporation for the Aerial Transit Company (Mar. 24). It failed.
- 1852—First dirigible. Henri Giffard, a French engineer, flew in a controllable (more or less) steam engine-powered balloon, 144 ft. long and 39 ft. in diameter, inflated with 88,000 cu. ft. of coal gas. It reached 6.7 mi. per hr. on a flight from Paris to Trappe (Sept. 24).
- 1860—First aerial photographers. Samuel Archer King and William Black made two photos of Boston, still in existence.
- 1872—First gas-engine powered dirigible. Paul Hæmlein, a German engineer, flew in a semi-rigid frame dirigible, powered by a 4-cylinder internal combustion engine running on coal gas drawn from the supporting bag.
- 1873—First transatlantic attempt. *The New York Daily Graphic* sponsored the attempt with a 400,000 cu. ft. balloon carrying a lifeboat. A rip in the bag during inflation brought collapse of the balloon and the project.
- 1897—First successful metal dirigible. An all-metal dirigible, designed by David Schwarz, a Hungarian, took off from Berlin's Tempelhof Field and, powered by a 16-hp. Daimler engine, got several miles before leaking gas caused it to crash (Nov. 13).
- 1900—First Zeppelin flight. Germany's Count Ferdinand von Zeppelin flew the first of his long series of rigid-frame airships. It attained a speed of 18 mi. per hr. and got 3½ mi. before its steering gear failed (July 2).
- 1903—First successful heavier-than-air machine flight. Aviation was really born on the sand dunes at Kitty Hawk, N. C., when Orville Wright crawled to his prone position between the wings of the biplane he and his brother Wilbur had built, opened the throttle of their home-made 12-hp. engine and took to the air. He covered 120 ft. in 12 sec. Later that day, in one of four flights, Wilbur stayed up 59 sec. and covered 852 ft. (Dec. 17).
- 1904—First airplane maneuvers. Orville Wright made the first turn with an airplane (Sept. 15); 5 days later his brother Wilbur made the first complete circle.
- 1905—First airplane flight over half an hour. Orville Wright kept his craft up 33 min. 17 sec. (Oct. 4).
- 1906—First European airplane flight. Alberto Santos-Dumont, a Brazilian, flew a heavier-than-air machine at Bagatelle Field, Paris (Sept. 13).
- 1908—First airplane fatality. Lt. Thomas E. Selfridge, U. S. Army Signal Corps, was in a group of officers evaluating the Wright plane at Fort Myer, Va. He was up about 75 ft. with Orville Wright when the propeller hit a bracing wire and was broken, throwing the plane out of control, killing Selfridge and seriously injuring Wright (Sept. 17).
- 1910—First licensed woman pilot. Baroness Raymonde de la Roche of France, who

- learned to fly in 1909, received ticket No. 36 on March 8.
- 1910—First flight from shipboard. Lt. Eugene Ely, USN, took a Curtiss plane off from the deck of cruiser *Birmingham* at Hampton Roads, Va., and flew to Norfolk (Nov. 14). The following January he reversed the process, flying from Camp Selfridge to the deck of the battleship *Pennsylvania* in San Francisco Bay (Jan. 18).
- 1911—First U. S. woman pilot. Harriet Quimby, a magazine writer, who got ticket No. 37.
- 1913—First multi-engined aircraft. Built and flown by Igor Ivan Sikorsky while still in his native Russia.
- 1914—First aerial combat. In August, Allied and German pilots and observers started shooting at each other with pistols and rifles—with negligible results.
- 1915—First air raids on England. German Zeppelins started dropping bombs on four English communities (Jan. 19).
- 1918—First U. S. air squadron. The U. S. Army Air Corps made its first independent raids over enemy lines, in DH-4 planes (British-designed) powered with 400-hp. American-designed Liberty engines (Apr. 8).
- 1918—First regular airmail service. Operated for the Post Office Department by the Army, the first regular service was inaugurated with one round trip a day (except Sunday) between Washington, D. C., and New York City (May 15).
- 1919—First transatlantic flight. The NC-4, one of four Curtiss flying boats commanded by Lt. Comdr. Albert C. Read, reached Lisbon, Port. (May 27) after hops from Trepassy Bay, Nfd. to Horta, Azores (May 16-17), to Ponta Delgada (May 20). The Liberty-powered craft was piloted by Walter Hinton.
- 1919—First nonstop transatlantic flight. Capt. John Alcock and Lt. Arthur Whitten Brown, British World War I flyers, made the 1,900 mi. from St. John's, Nfd. to Clifden, Ire., in 16 hr. 12 min. in a Vickers-Vimy bomber with two 350-hp. Rolls-Royce engines (June 15-16).
- 1919—First lighter-than-air transatlantic flight. The British dirigible R-34, commanded by Maj. George H. Scott, left Firth of Forth, Scot. (July 2) and touched down at Mineola, L. I., 108 hr. later. The eastbound trip was made in 75 hr. (completed July 13).
- 1919—First scheduled passenger service (using airplanes). Aircraft Travel and Transport inaugurated London-Paris service (Aug. 25). Later the company started the first trans-channel mail service on the same route (Nov. 10).
- 1921—First naval vessel sunk by aircraft. Two battleships being scrapped by treaty were sunk by bombs dropped from Army planes in demonstration put on by Brig. Gen. William S. Mitchell (July 21).
- 1921—First helium balloon. The C-7, non-rigid Navy dirigible was first to use non-inflammable helium as lifting gas, making a flight from Hampton Roads, Va., to Washington, D. C. (Dec. 1).
- 1922—First member of Caterpillar Club. Lt. (later Maj. Gen.) Harold Harris bailed out of a crippled plane he was testing at McCook Field, Dayton, Ohio (Oct. 20), and became the first man to join the Caterpillar Club—those whose lives have been saved by parachute.
- 1923—First nonstop transcontinental flight. Lts. John A. Macready and Oakley Kelly flew a single-engine Fokker T-2 nonstop from New York to San Diego, a distance of just over 2,500 mi. in 26 hr. 50 min. (May 2-3).
- 1923—First autogyro flights. Juan de la Cierva, brilliant Spanish mathematician, made the first successful flight in a rotary wing aircraft in Madrid (June 9).
- 1924—First round-the-world flight. Four Douglas Cruiser biplanes of the U. S. Army Air Corps took off from Seattle under command of Maj. Frederick Martin (Apr. 6). 175 days later two of the planes (Lt. Lowell Smith's and Lt. Erik Nelson's) landed in Seattle after a circuitous route—one source saying 26,345 mi., another saying 27,553 mi.
- 1926—First polar flight. Then-Lt. Cmdr. Richard E. Byrd, acting as navigator, and Floyd Bennett as pilot, flew a trimotor Fokker from Kings Bay, Spitsbergen, over the North Pole and back in 15½-hr. flight (May 8-9).
- 1927—First solo transatlantic flight. Charles Augustus Lindbergh lifted his Wright-powered Ryan monoplane, *Spirit of St. Louis*, from Roosevelt Field, L. I., to stay aloft 33 hr. 39 min. and cover 3,600 mi. to Le Bourget Field outside Paris (May 20-21).
- 1927—First transatlantic passenger. Charles A. Levine was piloted by Clarence D. Chamberlin from Roosevelt Field, L. I., to Elsieben, Ger., in a Wright-powered Bellanca (June 4-5).
- 1928—First east-west transatlantic crossing. Baron Guenther von Huenefeldt, piloted by German Capt. Hermann Koehl and Irish Capt. James Fitzmaurice, left Dublin for New York City (Apr. 12) in a single-engine all-metal Junkers monoplane. Some 37 hr. later they cracked up on Greely Island, Labrador. Rescued.
- 1928—First U. S.-Australia flight. Sir Charles Kingsford-Smith and Capt. Charles T. P. Ulm, Australians, and two American navigators, Harry W. Lyon and James Warner, crossed the Pacific from Oakland to Brisbane. They went via

Hawaii and the Fiji Islands in a trimotor Fokker (May 31-June 8).

1928—First trans-Arctic flight. Sir Hubert Wilkins, Australian explorer, piloted by Carl Ben Eielson, flew from Point Barrow, Alaska, to Spitsbergen (mid-April).

1929—First of the endurance records. With Air Corps Maj. Carl Spaatz in command and Capt. Ira Eaker as chief pilot, an Army Fokker, aided by refueling in the air, remained aloft 150 hr. 40 min. at Los Angeles (Jan. 1-7).

1929—First blind flight. James H. Doolittle proved the feasibility of instrument flying when he took off and landed entirely on instruments (Sept. 24).

1929—First rocket engine flight. Fritz von Opel, German auto maker, stayed aloft in his small rocket-powered craft for 75 sec., covering nearly 2 mi. (Sept. 30).

1929—First South Pole flight. Comdr. Richard E. Byrd, with Bernt Balchen as pilot, Harold I. June, radio operator, and Capt. A. C. McKinley, photographer, flew a trimotor Fokker from the Bay of Whales, Little America, over the South Pole and back (Nov. 28-29).

1930—First Paris-New York nonstop flight. Dieudonné Coste and Maurice Bellonte, French pilots, flew a Hispano-powered Brueget biplane from Le Bourget Field to Valley Stream, L. I., in 37 hr. 18 min. (Sept. 2-3).

1931—First flight into the stratosphere. Prof. Auguste Piccard, Swiss physicist, and Charles Knipfer, ascended in a balloon from Augsburg, Ger., and reached a height of 51,793 ft. in a 17-hr. flight that terminated on a glacier near Innsbruck, Austria (May 27).

1931—First nonstop transpacific flight. Hugh Herndon and Clyde Pangborn took off from Sabishiro Beach, Japan, dropped their landing gear and flew 4,860 mi. to near Wenatchee, Wash., in 41 hr. 13 min. (Oct. 4-5).

1932—First woman's transatlantic solo. Amelia Earhart, flying a Pratt & Whitney Wasp-powered Lockheed Vega, flew alone from Harbor Grace, Nfld., to Ireland in approximately 15 hr. (May 20-21).

1932—First westbound transatlantic solo. James A. Mollison, British pilot, took a de Havilland Puss Moth from Portmarnock, Ire., to Pennfield, N. B. (Aug. 18).

1932—First woman airline pilot. Ruth Rowland Nichols, first woman to hold three international records at the same time—speed, distance, altitude—was employed by N. Y.-New England Airways.

1933—First round-the-world solo. Wiley Post took a Lockheed Vega, *Winnie Mae*, 15,596 mi. around the world in 7 days 18 hr. 49½ min. (July 15-22).

1937—First successful helicopter. Hanna Reitsch, German woman pilot, flew Dr.

Heinrich Focke's FW-61 in free, fully-controlled flight at Bremen (July 4).

1939—First turbojet flight. Just before their invasion of Poland, the Germans flew a Heinkel He-178 plane powered by a Heinkel S3B turbojet (Aug. 27).

1942—First American jet plane flight. Robert Stanley, chief pilot for Bell Aircraft Corp., flew the Bell XP-59 *Airacomet* at Muroc Army Base, Calif. (Oct. 1).

1947—First piloted supersonic flight in an airplane. Capt. Charles E. Yeager, U. S. Air Force, flew the X-1, rocket-powered research plane built by Bell Aircraft Corp., faster than the speed of sound at Muroc Air Force Base, Calif. (Oct. 14).

1949—First round-the-world nonstop flight. Capt. James Gallagher and USAF crew of 13 flew a Boeing B-50A Superfortress around the world nonstop from Ft. Worth, Tex., returning to same point; 23,452 mi. in 94 hr. 1 min., with 4 aerial refuelings enroute (Feb. 27-Mar. 2).

1950—First nonstop transatlantic jet flight. Col. David C. Schilling (USAF) flew 3,300 mi. from England to Limestone, Maine, in 10 hr. 1 min. (Sept. 22).

1950—First jet-plane battle. Four U. N. jets attacked by 8 to 12 Communist jets near Sinuiju, Korea. One enemy jet reported shot down; no U. N. losses (Nov. 8).

1951—First solo across North Pole. Charles F. Blair, Jr., flew a converted P-51 (May 29).

1952—First jetliner service. De Havilland Comet flight inaugurated by BOAC between London and Rome (Apr. 21). Round trip: 4 hr. 46 min. flying time.

1952—First transatlantic helicopter flight. Capt. Vincent H. McGovern and 1st Lt. Harold W. Moore piloted 2 Sikorsky H-19s from Westover, Mass., to Prestwick, Scot. (3,410 mi.). Trip was made in 5 steps, with flying time of 42 hr. 25 min. (July 15-31).

1952—First transatlantic round trip in same day. British Canberra twin-jet bomber flew from Aldergrove, N. Ire., to Gander, Nfld., and back in 7 hr. 59 min. flying time (Aug. 26).

1955—First trancontinental round trip in same day. Lt. John M. Conroy piloted F-86 Sabrejet across U. S. (Los Angeles-New York) and back—5,085 mi.—in 11 hr. 33 min. 27 sec. (May 21).

1957—First round-the-world, nonstop jet plane flight. Maj. Gen. Archie J. Old, Jr., USAF, led a flight of 3 Boeing B-52 bombers, powered with 8 10,000-lb.-thrust Pratt & Whitney Aircraft J57 engines around the world in 45 hrs., 19 min.; distance 24,325 mi.; average speed 525 m.p.h. (Completed Jan. 18.)

International Airplane Records

Source: National Aeronautic Association.

(Speed over measured straightaway course)

Speed (mph)	Date	Type plane	Pilot	Place
294.38	Sept. 5, '32	Gea Bee Racer	Maj. J. H. Doolittle (U.S.A.)	Cleveland
304.98	Sept. 4, '33	Wedell-Williams	James R. Wedell (U.S.A.)	Glenview, Ill.
314.32	Dec. 25, '34	Caudron	Raymond Delmotte (France)	Istres
352.39	Sept. 13, '35	Hughes Special	Howard Hughes (U.S.A.)	Santa Anna
379.63	Nov. 11, '37	BF-113R	Herman Wurster (Germany)	Augsburg
469.22	Apr. 26, '39	ME-109R	Fritz Wendel (Germany)	Augsburg
606.25	Nov. 7, '45	Gloster Meteor IV	Gp. Capt. H. Wilson (Gr. Britain)	Herne Bay
615.78	Sept. 7, '46	Gloster Meteor	Gp. Capt. E. M. Donalson (Gr. Britain)	Little Hampton
650.80	Aug. 25, '47	Douglas D-558	Maj. Marion Carl, USMC (U.S.A.)	Muroc AF, Calif.
670.98	Sept. 15, '48	North American F-86A	Maj. R. L. Johnson (USAF)	Muroc AF, Calif.
698.51	Nov. 19, '52	North American F-86D	Capt. James S. Nash (USAF)	Salton Sea, Calif.
755.15	Oct. 29, '53	North American YF	Lt. Col. F. K. Everest, Jr. (USAF)	Salton Sea, Calif.
822.27	Aug. 20, '55	North American F-100C	Col. Horace A. Hanes (U.S.A.)	Palmdale, Calif.
1,132.14	Mar. 10, '56	Fairey Delta 2	L. Peter Twiss, D.S.C. (Gr. Britain)	Ford-Chichester, Eng.
1,207.63	Dec. 12, '57	McDonnell F-101A	Maj. Adrian E. Drew (USAF)	Edwards, Calif.
1,404.09	May 16, '58	Lockheed F104	Capt. Walter W. Irwin	Edwards, Calif.

(Fastest U. S. transcontinental: Lt. Gustav B. Klatt (USAF)—McDonnell RF-101C Voodoo—from Ontario Airport, Ontario, Calif., to Floyd Bennett Field, Brooklyn, N. Y.—2,445.9 mi. in 3 hr., 7 min., 43.64 sec.; average speed 781.741 mph—Nov. 27, 1957.)

Distance (Straight Line)

Distance (mi.)	Date	Crew	From	To
4,466.57	July 3-5, '28	Majs. A. Ferrarin, Del Prete (Italy)	Rome	Touros
4,911.93	Sept. 27-29, '29	Costes & Bellonte (France)	Le Bourget	Moulant
5,011.35	July 28-30, '31	Russel N. Boardman, John Polando (U.S.A.)	New York	Istanbul
5,656.93	Aug. 5-7, '33	Maurice Rossi, Paul Codos (France)	New York	Ryack
6,305.66	July 12-14, '37	Col. M. Gromov, Youmachew, Daniline (U.S.S.R.)	Moscow	San Jacinto, Calif.
7,158.44	Nov. 5-7, '38	Sqd. Ldr. R. Kellett (Gr. Britain)	Ismalia (Suez)	Darwin
7,916.00	Nov. 19-20, '45	Col. C. S. Irvine & Lt. Col. G. R. Stanley, (U.S.A.)	Guam	Washington, D. C.
11,235.60	Sept. 29-Oct. 1, '46	Comdr. Thomas D. Davies, Comdrs. Eugene P. Ranklin, Walter S. Reid, Lt. Comdr. Ray A. Tabeling (U.S.A.)	Perth, Australia	Columbus, Ohio

(Longest light airplane distance and longest solo, international: Marion L. Bolling—U. S. Beech J35 Bonanza (250 hp)—from Manila, P. I. to Pendleton, Ore., 6,856.32 mi.—July 31—Aug. 1, 1958.)

Distance (Closed Course)

Distance (mi.)	Date	Crew	Place
4,988.969	Dec. 15-17 '30	Costos & Codos (France)	Istres
5,088.267	May 31—June 2, '30	Maj. U. Maddalena & Lt. F. Cecconi (Italy)	Montecelio
6,444.881	June 7-10, '31	J. LeBrix & M. Doret (France)	Istres
6,587.441	Mar. 23-26, '32	Bossoutrot & Rossi (France)	Oran
7,239.588	May 13-15, '38	Comm. Fujita & Sgt. Maj. Takahashi (Japan)	Kisarazu
8,037.899	July 30—Aug. 1 '39	Angelo Tondi, Roberto Dagasso, Ferruccio Vignoli (Italy)	Rome
8,854.308	Aug. 1-2, '47	Lt. Col. O. F. Lassiter (U.S.) Capt. W. J. Valentine (U.S.)	Tampa, Fla.

Altitude

Height (feet)	Date	Crew	Place
43,166	June 4, '30	Lt. Apollo Soucek (U.S.A.)	Washington
43,976	Sept. 16, '32	Capt. Cyril F. Uwins (Gr. Britain)	Filton, Bristol
44,819	Sept. 28, '33	G. Lemoine (France)	Villacoublay
47,352	April 11, '34	Com. Renato Donati (Italy)	Rome
49,944	Sept. 28, '36	Sqd. Ldr. S. R. D. Swain (Gr. Britain)	South Farnborough
53,937	June 30, '37	Fl. Lt. M. J. Adam (Britain)	Farnborough
56,046	Oct. 22, '38	Col. Mario Pezzi (Italy)	Montecelio
59,445*	Mar. 23, '48	John Cunningham (Gr. Britain)	Hatfield
63,668*	May 4, '53	Walter F. Gibb (Gr. Britain)	Bristol
65,889*	Aug. 29, '55	Walter F. Gibb (Gr. Britain)	Bristol
70,308	Aug. 28, '57*	Michael Randrup (Gr. Britain)	Luton, Eng.
76,932	Apr. 18, '58*	Lt. Cdr. George C. Watkins (U. S.)	Edwards, Calif.

* Jet-propelled aircraft.

(Absolute altitude: 101,516 ft.—Maj. David G. Simons (USAF)—AF-WRI-1 balloon—take-off near Crosby, Minn., landing near Frederick, S. D.—Aug. 19-20, 1957. Altitude without payload, World "Class" Record: 91,243 ft.—Maj. Howard C. Johnson, USAF—Lockheed F104A monoplane at Palmdale, Calif., May 7, 1958.)

Helicopter Records

Source: National Aeronautic Association.

DISTANCE, AIRLINE

International: 1,217.14 mi.

Elton J. Smith (U. S.) in Bell 47-D1 helicopter powered by 200-hp. Franklin; from Ft. Worth, Tex., to Niagara Falls, N. Y., Sept. 17, 1952.

DISTANCE, CLOSED CIRCUIT

International: 1,199,078 mi.

Lt. Col. Harry L. Bush and Maj. William C. Dysinger (USA) in Vertol H21-C helicopter powered by 1275-hp. Wright R-1820-103; Robbinsville, N. J., Aug. 11, 1956.

ALTITUDE

International: 29,777 ft.

Capt. James E. Bowman (USA) in Cessna YH-41 prototype helicopter powered by Continental FSO-526A engine; Wichita, Kans., Dec. 28, 1957.

MAXIMUM SPEED

International: 162.743 mph.

Maj. Roy L. Anderson (USMC), pilot, Robert S. Decker, co-pilot (U. S.), in Sikorsky HR2S-1 helicopter powered by 2 Pratt & Whitney R-2800-54 engines; Windsor Locks, Conn., Nov. 11, 1956.

SPEED FOR 100 K.M. (CLOSED COURSE)

International: 141.915 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

SPEED FOR 500 K.M. (CLOSED CIRCUIT)

International: 136.014 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

SPEED FOR 1,000 K.M. (CLOSED CIRCUIT)

International: 132.633 mph.

Cpts. Claude E. Hargett & Ellis D. Hill (USA) in Sikorsky H-34 helicopter powered by 1275-hp. Wright R-1820; Milford, Conn., July 12, 1956.

Certificated U. S. Airplane Pilots

Source: Civil Aeronautics Administration.

Year (As of Dec. 31)	Total	Airline transport	Com- mercial	Private
1941.....	129,947	1,587	34,578	93,782
1942.....	166,626	2,177	55,760	108,689
1943.....	173,206	2,315	63,940	106,950
1944.....	183,383	3,046	68,449	111,888
1945.....	296,895	5,815	162,873	128,207
1946.....	400,061	7,654	203,251	189,156
1947.....	433,241 ¹	7,059 ¹	181,912 ¹	244,270 ¹
1948.....	491,306 ²	7,762 ²	176,845 ²	306,699 ²
1949.....	525,174	9,025	187,769	328,380
1951.....	580,574	10,813	197,000	371,861
1952.....	581,218	11,357	193,575	376,286
1953.....	585,974	12,757	195,363	377,854
1954.....	613,695	13,341	201,441	398,913
1955.....	643,201	13,700	211,142	418,359
1956.....	669,079	15,295	221,096	432,688
1957.....	702,519	16,900	237,149	448,470

¹ As of April 1, 1948. ² As of May 1, 1949. NOTE: No figures available for 1950.

U. S. Scheduled Airlines, 1957

Source: Civil Aeronautics Board.

Airline	Certificated route mileage ¹	Revenue passenger- miles, 1957
Domestic (Trunk)		
American.....	26,053	5,036,338,000
Braniff.....	12,134	864,583,000
Capital.....	10,969	1,513,022,000
Continental #29.....	6,259	363,099,000 ²
Delta.....	15,302	1,313,595,000
Eastern.....	20,991	4,396,982,000
National ³	3,383	894,466,000
Northeast ⁴	6,907	245,182,000
Northwest.....	9,611	945,959,000
Trans World (TWA).....	20,816	3,656,398,000
United.....	18,259	4,583,311,000
Western.....	7,487	686,575,000
TOTAL.....	158,171	24,499,510,000
Domestic (Local Service)		
Allegheny.....	2,758	76,845,000
Bonanza.....	2,315	32,023,000
Central.....	4,061	23,244,000
Continental #64.....	1,854	(⁵)
Frontier.....	5,119	57,620,000
Helicopter (Chicago).....	294	895,000
Helicopter (Los Angeles).....	389	1,121,000
Helicopter (New York).....	222	1,256,000
Lake Central.....	2,379	25,171,000
Mohawk.....	2,278	79,587,000
North Central.....	4,364	100,743,000
Ozark.....	4,009	62,941,000
Piedmont.....	3,756	82,656,000
Southern.....	2,202	37,518,000
Southwest.....	1,917	70,000,000
Trans-Texas.....	4,251	54,220,000
West Coast.....	2,318	44,720,000
TOTAL.....	44,486	750,560,000
Foreign or Overseas		
Alaska Airlines (States- Alaska).....	1,665	7,529,000
Aerovias Sud Americana ⁶	3,292	.....
American.....	3,375	100,303,000
Braniff.....	8,361	92,381,000
Caribbean Atl.....	681	15,801,000
Delta.....	3,630	81,715,000
Eastern ⁴	9,586	424,154,000
Hawaiian.....	389	61,827,000
Mackey.....	1,869	17,308,000
National ³	114	51,971,000
Northwest.....	16,349	259,806,000
Pacific Northern.....	3,057	105,035,000
Pan American.....	189,319	3,589,883,000
Panagra.....	10,643	168,641,000
Resort ⁶	13,645	.....
Riddle ⁶	2,309	.....
Seaboard & Western ⁶	15,163	.....
South Pacific ⁶	2,776	.....
Trans-Pacific.....	379	27,661,000
Trans World (TWA).....	38,664	699,945,000
United.....	2,898	252,004,000
UMCA ⁴	378	494,000
Western ⁴	1,640	15,066,000
TOTAL.....	330,182	5,971,524,000

¹ As of Dec. 31, 1957. ² Combined figure for Continental #29 and #64. ³ National was on strike from roughly Sept. 23 to Oct. 24, 1957. ⁴ Inauguration of additional scheduled services: Northeast, coach, Jan. 9, 1957; UMCA, coach, Jan. 6, 1957; Mexican route—Eastern, July 23, 1957, and Western, July 15, 1957. ⁵ All cargo carrier. ⁶ Service not yet inaugurated.

Representative American Aircraft Types

Source: Aviation Weekly and Aircraft Industries Assn.

Manufacturer ¹	Model	Passengers	Max. speed, mph	Max. weight	Wingspan	Overall length	No. and make of engines
TRANSPORT							
Boeing Airplane Co.....	707-120	110-130	...	248,000	130' 10"	134' 6"	4 P & W
	720	110-130	600+	203,000	130' 10"	134' 6"	4 P & W
Convair Div.....	440	44-52	310	49,100	105' 4"	79' 2"	2 P & W
	880	88-109	615	178,500	120'	129' 4"	4 GE
Douglas A.C.....	DC-6B	54	370	100,000	117' 6"	106' 6"	4 P & W
	DC-7	69-99	409	122,000	117' 6"	108' 11"	4 Wright
Lockheed A. Corp.....	DC-8	116-176	...	265,000	139' 9"	150' 6"	4 P & W
	C-124C	.....	304	185,000	174' 2"	130'	4 P & W
Lockheed A. Corp.....	1049G	47-99	370	137,500	123' 5"	116' 2"	4 Wright
	1649A	47-99	377	156,000	150'	116' 2"	4 Wright
North American Aviation Co., Inc.....	C-121C	.....	376	.....	123' 5"	116' 2"	4 Wright
	UTX	4-8	575	15,330	42' 6"	43' 9"	2 GE
PERSONAL & EXECUTIVE							
Aero Des. & Eng. Co.....	560E	8	270	6,500	49'	35' 5"	2 Lycoming
	680	8	270	7,000	44'	35' 5"	2 Lycoming
Bee Aviation Assn., Inc.....	Queen Bee	4	175	2,150	32' 10"	22' 1"	1 Lycoming
Beech A. Corp.....	E18S	8	234	9,300	49' 8"	35' 2"	2 P & W
	D50A	6	214	6,300	45' 3"	31' 6"	2 Lycoming
Cessna A. C.....	MS-760	4	403	7,725	33' 3"	33'	2 Turbomeca
	172	4	135	2,200	36'	25'	1 Continental
Helio A. Corp.....	182	4	165	2,650	36'	26'	1 Continental
	310B	5	232	4,700	36'	27'	2 Continental
Piper A. Corp.....	Courier	5	169	3,000	39'	30'	1 Lycoming
Taylorcraft, Inc.....	PA-18 "95"	2	112	1,500	35' 3"	22' 5"	1 Continental
	PA-22 "150"	4	139	2,000	29' 3"	20' 6"	1 Lycoming
Taylorcraft, Inc.....	PA-24 "180"	4	167	2,550	36'	24' 8"	1 Lycoming
	Zephyr	4	160	2,750	34' 8"	24' 4"	1 Continental
HELICOPTERS							
Bell A. Corp.....	47G	2	86	2,350	.....	41' 5 1/2"	1 Franklin
	UH-1A	5	151	5,800	.....	53' 2"	1 Lycoming
Cessna A. C., Hel. Div.....	CH-1	1	122	3,000	.....	42' 6 1/2"	1 Continental
Doman Helicopters, Inc.....	LZ5-2	7	105	5,200	.....	58' 9 1/2"	1 Lycoming
Hiller Helicopters.....	UH12-C	2	87	2,850	.....	40' 6 1/2"	1 Franklin
Kaman A. Corp.....	HOK-1	3	110	6,800	.....	47' 2"	1 P & W
Sikorsky A. Div.....	S-55C	10	101	7,200	.....	62' 7 1/2"	1 P & W
	S-58	18	134	13,300	.....	82' 10 1/2"	1 Wright
Vertol A. Corp.....	S-62	.....	.....	.....	.....	62' 7 1/2"	1 GE
	PD-18	5-6	108	6,100	.....	56' 11 1/2"	1 Continental
Vertol A. Corp.....	143	20	140	15,000	.....	86' 4 1/2"	1 Wright

¹ A.C.—Aircraft Company; A. Corp.—Aircraft Corporation; A. Div.—Aircraft Division. ² Blades unfolded.

U. S. Warplane Production Record, 1940-45

Source: Civil Aeronautics Administration.

Type	1940	1941	1942	1943	1944	1945	1940-45
Total.....	6,019	19,433	47,836	85,898	96,318	47,714	303,218
Bombers.....	1,191	4,115	12,627	29,355	35,003	16,492	98,783
Fighters.....	1,685	4,416	10,769	23,988	38,873	21,696	101,427
Photographic and reconnaissance.....	121	727	1,468	734	259	531	3,840
Transport.....	290	532	1,984	7,012	9,834	4,629	24,281
Trainer.....	2,731	9,373	17,631	19,939	7,577	1,309	58,560
Other*.....	1	270	3,357	4,870	4,772	3,057	16,327

* Includes special purpose, rotary wing, and liaison aircraft.

Important American Aircraft Types (U. S. Air Force)

Source: U. S. Department of Defense.

Type	Manufacturer	Power plant ¹	Max. take-off ratings	Span, feet	Length, feet	Height, feet	Weight	Speed, mph	Crew
BOMBERS									
B-26	Douglas	2 R2800 PW-79	2,000 hp.	70.0	51.8	18.5	40,000	Over 300 ²	3
B-29	Boeing	4 R3350 W-57 or 57A	2,200 hp.	141.2	99.0	27.8	140,000	345 ²	11
B-36J	Convair	6 R4360 PW-53	3,800 hp.	230.0	162.0	46.8	370,000	Over 435	15
		4 J47 GE-19	52,000 lb.						
B-45C	North American	4 J-47 GE-9 or 15	5,200 lb.	89.0	75.3	25.2	110,000	500 knot class	4
B-47E	Boeing	6 J47 GE-25	6,000 lb.	116.0	107.1	28.0	200,000	600 class	3
B-50B	Boeing	4 R4360 PW-35	3,500 hp.	141.2	99.0	32.7	170,000	Over 400	10
B-52D	Boeing	8 J57	10,000 lb.	185.0	156.5	48.3	Over 400,000	Over 650	6
B-57B	Martin	2 J65 W-5	7,200 lb.	64.0	65.5	14.8	50,000	Over 600	2
B-58	Convair	4 J-79	15,000 lb.	57.0	97.0	31.0	16,000	Supersonic	3
B-66B	Douglas	2 J71 A-9	10,000 lb.	72.5	75.1	23.6	.....	600-700	3
FIGHTERS									
F-80C	Lockheed	1 J33 A-31 or 35	5,200 lb.	38.9	34.5	11.3	16,000	600 class	1
RF-84F	Republic	1 J65 W-3	7,200 lb.	33.6	47.4	15.0	25,000	Over 650	1
F-84F	Republic	J65 W-3	7,200 lb.	33.6	43.4	15.0	25,000	Over 650	1
F-84G	Republic	1 J35 A-29	5,600 lb.	36.4	38.1	12.6	18,000	600 class	1
F-86D	North American	1 J47 GE-33	7,650 lb. ²	37.1	40.3	15.0	18,000	650 class	1
F-86F	North American	1 J47 GE-27	5,910 lb.	37.1	37.5	14.7	17,000	650 class	1
F-86H	North American	1 J73 GE-3	.....	37.1	38.8	15.0	.....	Over 650	1
F-89C	Northrop	2 J35 A-33	5,400 lb.	56.1	53.4	17.6	40,000	600 class	2
F-89D	Northrop	2 J35 A-35	5,600 lb.	57.8	53.8	17.5	40,000	600 class	2
F-89H	Northrop	J35 A-35	5,600 lb.	59.6	53.8	17.5	45,000	600 class	2
F-94A & B	Lockheed	J33 A-33	4,600 lb.	37.5	40.1	12.7	16,000	600 class	2
F-94C	Lockheed	1 J48 P 5	6,250 lb.	37.3	44.5	14.9	20,000	600 class	2
F-100	North American	J57 P-7	15,000 lb.	38.6	47.8	15.3	28,000	Over 1,000	1
F-100A	North American	1 J57 P-7	10,000 lb.	38.6	47.8	15.3	.....	Supersonic	1
F-101	McDonnell	(2) J57 P-13	15,000 lb.	39.7	67.4	18.0	40,000	Over 1,000	1
F-101A	McDonnell	2 J57 P-13	10,000 lb.	39.7	67.4	18.0	.....	Supersonic	1
F-102A	Convair	1 J57 P-23	10,000 lb.	38.0	68.0	20.0	.....	Supersonic	1
F-104A	Lockheed	J79	.....	21.0	54.0	13.0	.....	Ultrasonic	1
F-105A	Republic	J57	15,000 lb.	30.0	60.0	20.0	.....	Supersonic	1
F-106A	Convair	J75	15,000 lb.	.....	.....	.....	.....	Over 1,000	1
F-107	North American	J75	15,000 lb.	36.0	61.0	19.0	.....	Over 1,000	1
TRANSPORTS									
C-45H	Beech	2 R985-AN-14B P	450 hp.	47.6	34.2	10.7	9,000	190 top ²	2
C-46F	Curtiss Wright	P&W R2800-75	2,000 hp.	108.0	76.3	21.7	55,000	230 ²	4
C-47D	Douglas	2 R1830-90D P	1,200 hp.	95.0	64.4	16.9	33,000	200 top ²	5
C-54G	Douglas	4 R2000-9 P	1,450 hp.	117.5	93.8	27.5	82,500	300 top	3
C-74	Douglas	4 R4360-49 P	3,500 hp.	173.3	124.2	43.8	165,000	Over 33	5
C-82	Fairchild	2 P&W R2800-85	2,100 hp.	106.5	77.1	26.3	54,000	250 mph (top)	5
C-97C	Boeing	4 R4360-35 A P	3,250 hp.	142.2	110.3	38.3	175,000	Over 270	5
C-118A	Douglas	4 R2800-CB-17 P	2,200 hp.	117.5	106.8	28.8	107,000	Over 360	5
C-119G	Fairchild	2 R3350-85 W	3,250 hp.	109.3	86.5	26.2	74,000	250	5
C-121	Lockheed	4 R3350	3,250 hp.	123.0	116.0	23.0	125,000	370	5
C-122	Chase	2 R1820-101	1,425 hp.	86.4	56.7	21.3	30,000	220 top	2
C-123B	Fairchild	2 R2800-99W P	2,500 hp.	110.0	75.7	34.1	50,000	240 top	2
C-124C	Douglas	4 R4360-63 P	3,800 hp.	174.1	130.0	48.3	185,000	Over 300	5
C-130	Lockheed	4 T56 A-1	3,750 hp.	132.7	94.8	38.3	108,000	.....	4
C-131A	Convair	R2800-99W	2,300 hp.	91.7	74.7	27.3	43,000	Over 300	2
C-131B	Convair	2 R2800-103-W P	2,500 hp.	105.3	79.2	28.1	47,000	Over 300 ²	2
KC-135	Boeing	4 J-57	10,000 lb.	130.8	136.3	36.4	.....	Over 550	4
HELICOPTERS									
H-5H	Sikorsky	1 R985-AN5 P	450 hp.	49.0	41.1	13.0	6,500	105 top	2
H-13E	Bell	1 O-335-A	200 hp.	35.1	31.0	9.5	2,500	100	1
H-19	Sikorsky	1 R1340-57 P	600 hp.	53.0	42.1	15.5	7,500	Over 100	2
H-21C	Vertol	1 R1820-103W	1,425 hp.	44.0	52.5	14.5	15,000	Over 110 ²	2
H-23B	Hiller	1 Franklin 6V4-200-C-33	200 hp.	35.0	38.7	9.8	2,500	84	1
H-25	Vertol	1 Continental R975-42	550 hp.	35.0	31.9	12.5	6,000	Over 100	2
H-34	Sikorsky	R1820-84	1,425 hp.	56.0	49.1	15.8	13,300	132	2
H-37	Sikorsky	2 PW R2800-54	1,900 bhp. @ 2,600 rpm	72.0	88.3	22.3	.....	.....	3

¹ A—Allison; GE—General Electric; P—Pratt & Whitney; W—Wright. ² With afterburner. ³ Knots.

ASTRONOMY AND CALENDAR

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Kinds of Time

Of the three main kinds of time (sidereal, apparent solar, and mean solar), the two kinds used in our calendar pages (local civil and standard time) are both types of mean solar time.

Sidereal time is used mostly in astronomy. It is nearly but not exactly star-time, and is measured by the diurnal rotation of the vernal equinox point in the sky. Sidereal days are shorter than solar days by about $3^m 56^s$ of mean time.

Apparent solar time is measured by the apparent diurnal rotation of the sun, and is the hour-angle of the sun $+12^h$. When the sun is at lower transit we have 0^h by apparent time; when it is on the upper meridian the apparent time is 12^h . The sun is not a good timekeeper, its eastward motion along the ecliptic being irregular, so apparent days are of unequal duration.

Mean solar time is the hour-angle of the "mean sun" $+12^h$. The mean sun is an imaginary body moving uniformly along the celestial equator. When the mean sun is on the lower meridian, the mean time is 0^h . The actual sun is sometimes ahead of and sometimes behind the mean sun, and the difference at any moment is the *equation of time*. When the sun is west of the mean sun, we have the "sun fast" situation, and the sun crosses the meridian before the mean sun; when the sun is east of the mean sun, we have the "sun slow" condition, and the sun transits after the mean sun. The equation of time helps in conversion of apparent and mean solar time. No clock runs on apparent time but ordinary clocks keep mean solar time in some form.

Local civil time (L.C.T.) is the mean solar time of a designated meridian, and its day begins with the mean sun at lower transit. This is midnight, the moment of zero hour (0^h). Ordinary clocks are not set to local civil time, because this time—

at any instant—varies with any change of longitude.

Standard time is the local civil time of a standard meridian, but used over an entire time-zone. In the U. S. the four zones (Eastern, Central, Mountain, and Pacific) are based upon the standard meridians of 75° , 90° , 105° , and 120° respectively. Ordinary clocks run on standard time, a type of mean solar time. In the summer, in certain localities, they run on advanced time (as daylight saving time) but this is only a clock-setting, and is actually standard time. Daylight saving time for a certain zone is the normal standard time of one zone to the east. While popular in certain metropolitan areas, it is not used for scientific observations. Advanced time is 1^h later on the clock-face than the normal standard time of the same zone.

Time zones. A time-zone chart of the entire world shows clearly how the world is divided into 24 time zones according to longitude. In a large proportion of countries, standard time is in use, and commonly the time on the clock-face reads 1 hour later for each zone east of a given zone, and 1 hour earlier for each zone west of a given zone. The zero time-zone of the world runs thru Greenwich, Eng., and the zones are so marked that the standard time at a particular station, added algebraically to the zone-number at the bottom gives the corresponding universal time or Greenwich civil time. For example, 3 A.M., M.S.T. $+ 7^h = 10^h$ U.T. or G.C.T.

Mexico, except for the northern part of Lower California, uses 90th-meridian time entirely. Canada uses the 4 standard-time zones of the U. S., and two others: (1) 60th-meridian or Atlantic standard time, for New Brunswick, Nova Scotia, and Quebec (east of 68° w.), 4^h earlier than Greenwich, and (2) 135th-meridian or Yukon standard time, 9^h earlier than Greenwich.

Newfoundland and the Labrador coast use Newfoundland standard time, 3^h 30^m earlier than Greenwich. Alaska uses 4 time-zones, those based on the following meridians of west longitude: 120° (Juneau), 135° or Yukon standard time (Yakutat), 150° or Alaska standard time (Fairbanks), and 165° (Nome).

The Date-line. At any moment of time, usually there are parts of two different but contiguous days going on at different places on the earth. The change of date is made at the date-line, an imaginary line that follows essentially the course of the 180° meridian in the Pacific Ocean. At points east of the date-line the calendar day is 1 day earlier than at places to the west of

the line. At a point just west of the date-line, let us suppose it is 18^h or 6 P.M., L.C.T., on Aug. 1. At the same moment it is 12^h at long. 90° e., 6^h at long. 0°, and 0^h at long. 90° w., all of the same date, Aug. 1. West of long. 90° w., it is not yet 0^h (midnight); hence between 90° w. and 180° the date must be July 31. As one crosses the date-line going eastward his watch remains the same but the date changes abruptly to 1 day earlier, so the traveler repeats part of a calendar day. As one crosses the line going westward the date changes abruptly to one day later, causing him to omit a calendar day. (According to actual practice, the change is made at night regardless of the true moment of crossing.)

On Using the Following Calendar Pages

Sun fast and sun slow. This is the equation of time, as previously discussed.

Sunrise and sunset. For accurate results, two corrections to the tabular values are necessary: (1) interpolation for latitude, and (2) reduction to standard time. When the observer is at a latitude between two given latitudes, he computes a time for sunrise or sunset that lies between the times shown for the given latitudes. (Our table of longitudes and latitudes is a guide for one's position, but a large atlas may be consulted.) For example, on May 24 the sun rises at 4:51 A.M. at lat. 35° and at 5:02 at lat. 30°, the difference being +11^m or increasing 2^m per degree going south. An observer at Ocala, Fla., lat. 29°11' n., would be less than 1° south of 30°. Hence a sunrise of 5:04 is indicated for lat. 29° or 5:04 A.M., L.C.T. Reduce the L.C.T. to standard time by the precepts. The station (long. 82°7' w.) is 77' or 7.1° west of the 75° standard meridian; $7.1(+4^m) = +28^m.4$ or 28^m; $5:04 + 28^m = 5:32$ A.M., E.S.T. for sunrise at Ocala.

In the sun and moon tables, the data has to be given in LOCAL CIVIL TIME. This is *not* standard time, but has to be reduced to standard time.

To reduce local civil time to standard time, decrease the L.C.T. by 4^m for every degree the station is east of the standard meridian, or increase the L.C.T. by 4^m for every degree the station is west of the standard meridian.

Moonrise and moonset. For accurate results at any station in the U. S., three corrections are needed: (1) interpolation for latitude, (2) correction for longitudes west of 82½°, and (3) reduction to standard time.

(1) Interpolation for latitude follows the same method as for the sun.

(2) Use of the *a-factor*. The moon tables are exact for the given latitudes and for longitude 75° w. The *a-factor* adapts them to any longitude in the U. S. For observers in the eastern states and as far west as long. 82½° [Port Huron, Mich., Mans-

field, Ohio, Huntington, W. Va., Asheville, N. C., Tampa, Fla.], no *a-factor* is used. For stations in the 90° zone, between 82½° and 97½°, use the *a-factor* in the column "90°". The "*a-factor*, moonrise" is always to be added to the time of moonrise as derived from the main tables, and the "*a-factor*, moonset" is added to the time of moonset as derived. The boundary at 97½°, between the 90° and the 105° zones, runs through Grafton, N. Dak., Webster, S. Dak., Norfolk, Nebr., Salina, Kans., Oklahoma City, Okla., Fort Worth and Corpus Christi, Tex. Observers in the 105° zone, between 97½° and 112½° long., will use the "105°" *a-factor*, and those west of 112½° will use the "120°" *a-factor*, the eastern boundary (112½°) of the 120° zone going through Butte, Mont., Pocatello, Idaho, Panguitch, Utah, and Prescott, Ariz. These zones do not correspond to the irregular divisions of the standard-time belts.

(3) Change L.C.T. to standard time.

Ex., find moonrise time on May 24 at Newport News, Va., long. 76°26' w., lat. 36°57' (= 36°.95). (a) Moonrise for lat. 35° is 9:24 P.M.; for 40°, 9:35 P.M. The increase is +11^m. The station is 1.95/5 or 0.39 the distance between 35° and 40°. $0.39(+11^m) = +4^m.3$ or +4^m. $9:24 + 4^m = 9:28$ P.M., L.C.T. (b) No *a-factor* is indicated, the longitude being close enough to 75°. (c) Reduce to standard time. $76°26' - 75° = 1°26'$, hence Newport News is 1°26' or 1.43 w. of the 75° meridian. $1.43(+4^m) = +5^m.72$ or +6^m; $9:28$ P.M. + 6^m = 9:34 P.M., E.S.T., moonrise at Newport News.

Moon's transit. This data indicates the local civil time of the moon crossing the observer's meridian. The time is the same for all latitudes. It is nearly correct for all longitudes in the U. S.; for more exact work use—for every day—a mean *a-factor* of 2^m, 4^m, 6^m. That is, for the 75° zone, use no correction; for the 90° zone add 2^m to the time in the tables; for the 105° zone add 4^m; for the 120° zone add 6^m. Afterward, reduce the L.C.T. to standard time.

JANUARY 1959

	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit			a-factor, moonset																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Sun slow	Sun-rise		Moon-rise		Moon-set	Sun-rise	Sun-set		Moon-rise	Moon-set	Sun-rise	Sun-set		Moon-rise	Moon-set																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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FEBRUARY 1959

Feb.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				a-factor, moonset		
		Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon's upper transit			
1 Sun.	13 33	m	s	m	m	h	m	h	m	h	m	h	m	h	m	h	m	m	m	m
2 Mon.	13 41	3	5	8	12 8	6 59	5 28	1 3	11 59	7 9	5 18	1 12	11 50	7 21	5 7	1 22	11 39	6 33	2 4	6
3 Tue.	13 49	3	5	8	12 59	6 59	5 29	2 7	12 49	7 9	5 20	2 17	12 38	7 19	5 8	2 30	12 26	7 29	2 4	7
4 Wed.	13 55	2	4	7	1 54	6 58	5 30	3 8	1 44	7 8	5 21	3 19	1 32	7 18	5 10	3 34	1 19	8 26	2 5	7
5 Thu.	14 1	2	4	6	3 56	6 57	5 31	4 6	2 41	7 7	5 22	4 17	2 31	7 17	5 11	4 31	2 17	9 23	3 5	8
6 Fri.	14 6	2	3	5	4 49	6 56	5 32	4 58	3 42	7 6	5 23	5 10	3 32	7 16	5 12	5 23	3 20	10 19	3 5	8
7 Sat.	14 10	2	3	5	5 38	6 55	5 33	5 46	4 43	7 5	5 24	5 56	4 34	7 15	5 14	6 6	4 25	11 13	3 5	8
8 Sun.	14 14	1	3	4	6 23	6 55	5 34	6 29	5 44	7 3	5 26	6 36	5 38	7 13	5 15	6 44	5 31	12 4	3 5	8
9 Mon.	14 16	1	3	4	7 3	6 54	5 35	7 7	6 44	7 2	5 27	7 12	6 40	7 12	5 17	7 18	6 35	12 53	3 5	8
10 Tue.	14 18	1	2	4	7 40	6 53	5 36	7 43	7 42	7 1	5 28	7 46	7 40	7 11	5 18	7 49	7 38	1 40	2 5	7
11 Wed.	14 19	1	3	4	8 16	6 52	5 37	8 17	8 38	7 0	5 29	8 17	8 39	7 10	5 20	8 18	8 40	2 25	2 5	7
12 Thu.	14 20	1	3	4	8 51	6 51	5 38	8 50	9 33	6 59	5 30	8 47	9 37	7 8	5 21	8 46	9 40	3 9	2 5	7
13 Fri.	14 21	1	3	4	9 25	6 50	5 39	9 22	10 28	6 57	5 32	9 18	10 34	7 7	5 23	9 14	10 39	3 52	2 5	7
14 Sat.	14 18	1	3	4	10 16	6 49	5 40	9 55	11 22	6 56	5 33	9 50	11 29	7 5	5 24	9 43	11 37	4 36	2 5	7
15 Sun.	14 16	2	3	5	10 38	6 48	5 41	10 31	11 22	6 55	5 34	10 23	11 29	7 4	5 26	10 14	11 37	5 21	2 4	7
16 Mon.	14 13	2	4	5	11 17	6 47	5 42	11 9	0 15	6 54	5 35	10 59	0 24	7 2	5 27	10 49	0 35	6 6	2 4	7
17 Tue.	14 10	2	4	5	11 59	6 46	5 43	11 50	1 8	6 53	5 36	11 40	1 18	7 1	5 29	11 27	1 30	6 54	2 4	7
18 Wed.	14 5	2	4	7	12 45	6 45	5 44	12 35	2 0	6 51	5 38	12 24	2 11	6 59	5 30	12 11	2 24	7 42	2 4	6
19 Thu.	14 0	2	5	7	1 35	6 44	5 45	1 25	2 50	6 50	5 39	1 14	3 1	6 58	5 32	1 1	3 15	8 33	2 4	6
20 Fri.	13 55	3	5	8	2 29	6 43	5 46	2 20	3 39	6 49	5 40	2 9	3 50	6 56	5 33	1 56	4 2	9 24	2 4	6
21 Sat.	13 48	3	5	8	3 25	6 42	5 47	3 18	4 25	6 48	5 41	3 8	4 35	6 54	5 34	2 58	4 47	10 16	2 4	5
22 Sun.	13 41	3	5	8	4 26	6 41	5 48	4 19	5 10	6 46	5 42	4 12	5 18	6 53	5 36	4 3	5 27	11 8	2 3	5
23 Mon.	13 34	3	6	8	5 27	6 39	5 49	5 23	5 52	6 45	5 43	5 17	5 58	6 51	5 37	5 12	6 4	11 8	2 3	5
24 Tue.	13 26	3	6	9	6 30	6 38	5 50	6 28	6 32	6 43	5 44	6 25	6 36	6 50	5 39	6 23	6 40	0	2 3	5
25 Wed.	13 17	3	6	9	7 11	6 37	5 51	7 35	7 11	6 42	5 45	7 35	7 12	6 48	5 40	7 35	7 13	0 53	2 3	4
26 Thu.	13 7	3	6	9	8 39	6 36	5 52	8 42	7 50	6 41	5 46	8 45	7 49	6 46	5 41	8 48	7 47	1 46	2 3	5
27 Fri.	12 57	3	6	8	9 44	6 35	5 53	9 49	8 31	6 39	5 47	9 54	8 26	6 44	5 42	10 1	8 22	2 39	2 3	5
28 Sat.	12 47	3	5	8	10 48	6 33	5 53	10 56	9 13	6 38	5 49	11 3	9 7	6 43	5 44	11 13	8 59	3 34	2 3	5
					11 52	6 32	5 54	.....	9 59	6 36	5 50	.....	9 50	6 41	5 45	.....	9 39	4 29	2 4	6

MARCH 1959

Mar.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit		a-factor, moonset	
		Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	h m	m	90°	105° 120°
1 Sun.	12 36	m 3	5 8	h m	10 57	h m	5 55	h m	10 48	h m	5 51	h m	10 37	h m	5 46	h m	10 25	h m	m	m	m
2 Mon.	12 24	3 3	5 7	6 27	11 50	6 30	5 56	6 35	11 40	6 33	5 52	6 33	11 29	6 39	5 47	6 33	11 15	6 22	4	4	6
3 Tue.	12 12	2 4	7 6	6 26	11 50	6 30	5 56	6 35	11 40	6 33	5 52	6 33	11 29	6 39	5 47	6 33	11 15	6 22	5	5	7
4 Wed.	11 59	2 4	6 6	6 25	12 46	6 28	5 57	6 32	12 36	6 30	5 53	6 32	12 25	6 36	5 49	6 34	12 11	7 18	2	5	7
5 Thu.	11 46	2 4	5 5	6 23	1 44	6 27	5 57	6 30	1 34	6 30	5 54	6 30	1 24	6 34	5 50	6 38	1 12	8 13	3	5	8
6 Fri.	11 33	2 3	5 6	6 22	2 42	6 25	5 58	6 29	2 34	6 29	5 55	6 29	2 25	6 33	5 52	6 42	2 14	9 7	3	5	8
7 Sat.	11 19	1 3	4 4	6 20	3 40	6 24	5 59	6 27	3 34	6 27	5 56	6 27	3 27	6 31	5 53	6 43	3 18	9 58	3	5	8
8 Sun.	11 5	1 3	4 4	6 19	4 38	6 23	6 0	6 25	4 33	6 25	5 57	6 25	4 28	6 29	5 54	6 42	4 22	10 47	3	5	7
9 Mon.	10 50	1 3	4 4	6 18	5 33	6 21	6 1	6 24	5 41	6 24	5 58	6 24	5 36	6 27	5 56	6 50	5 25	11 34	2	5	7
10 Tue.	10 35	1 2	4 4	6 17	6 49	6 20	6 2	6 22	6 16	6 22	6 0	6 17	6 27	6 25	5 57	6 19	6 27	12 19	2	5	7
11 Wed.	10 20	1 3	4 4	6 16	7 24	6 17	6 4	6 21	7 22	6 19	6 2	6 18	7 23	6 21	6 1	6 48	7 26	1 3	2	5	7
12 Thu.	10 4	1 3	4 4	6 15	8 15	6 16	6 5	6 20	8 18	6 17	6 3	6 16	8 23	6 21	6 1	7 18	8 27	1 47	2	5	7
13 Fri.	9 48	1 3	4 4	6 14	9 9	6 15	6 5	6 19	9 13	6 17	6 3	6 16	9 19	6 19	6 1	7 50	9 26	2 31	2	5	7
14 Sat.	9 32	2 3	5 6	6 12	10 51	6 13	6 6	6 17	10 6	6 16	6 4	6 16	10 14	6 17	6 2	8 15	10 24	3 15	2	4	7
15 Sun.	9 16	2 3	5 6	6 11	11 41	6 12	6 7	6 16	11 51	6 13	6 6	6 16	11 8	6 16	6 4	8 47	11 19	4 0	2	4	7
16 Mon.	8 59	2 4	6 6	6 10	10 39	6 11	6 8	6 16	10 29	6 11	6 7	6 16	9 36	6 16	6 5	9 24	10 24	4 47	2	4	6
17 Tue.	8 42	2 4	6 6	6 9	11 25	6 10	6 9	6 16	11 16	6 11	6 7	6 16	10 18	6 12	6 6	10 5	10 14	5 34	2	4	6
18 Wed.	8 24	2 5	7 6	6 8	12 16	6 8	6 8	6 16	12 7	6 9	6 8	6 16	11 56	6 10	6 7	10 52	1 5	6 23	2	4	6
19 Thu.	8 7	2 5	7 6	6 6	1 11	6 6	6 10	6 16	2 16	6 6	6 10	6 16	12 52	6 7	6 10	12 41	2 39	8 3	2	4	5
20 Fri.	7 49	3 5	8 6	6 5	2 8	6 5	6 11	6 16	3 0	6 5	6 11	6 16	1 52	6 5	6 12	1 43	3 20	8 54	2	3	5
21 Sat.	7 31	3 6	8 6	6 4	3 36	6 3	6 12	6 3	3 43	6 3	6 12	6 3	2 56	6 3	6 13	2 49	3 58	9 46	2	3	5
22 Sun.	7 13	3 6	8 6	6 3	4 10	6 2	6 13	6 2	4 23	6 1	6 13	6 2	4 3	6 1	6 14	3 59	4 34	10 38	2	3	5
23 Mon.	6 55	3 6	8 6	6 2	5 14	6 0	6 14	6 0	5 3	6 0	6 14	6 0	5 12	6 0	6 15	5 10	5 8	11 31	2	3	5
24 Tue.	6 37	3 6	9 6	6 0	6 14	5 59	6 15	5 59	6 14	5 58	6 15	5 58	6 23	6 0	6 17	6 25	5 42	12 11	2	3	5
25 Wed.	6 19	3 6	9 6	5 59	7 26	5 57	6 15	5 57	7 30	5 57	6 16	5 57	7 35	5 55	6 18	7 40	6 17	0 26	2	3	5
26 Thu.	6 0	3 6	9 6	5 58	8 33	5 56	6 16	5 56	8 39	5 55	6 17	5 55	8 47	5 53	6 18	8 55	6 54	1 21	2	4	5
27 Fri.	5 42	3 6	8 6	5 57	9 40	5 55	6 17	5 55	9 53	5 53	6 18	5 53	9 57	5 51	6 20	9 51	7 35	2 18	2	4	6
28 Sat.	5 24	3 5	8 6	5 56	10 44	5 53	6 18	5 53	10 53	5 52	6 19	5 52	11 4	5 49	6 22	11 17	8 20	3 16	2	4	6
29 Sun.	5 5	2 5	7 5	5 54	11 45	5 52	6 18	5 52	11 55	5 50	6 21	5 50	12 11	5 48	6 23	12 11	9 11	4 15	2	5	7
30 Mon.	4 47	2 4	6 6	5 53	10 41	5 50	6 19	5 49	10 31	5 49	6 22	5 49	10 19	5 46	6 25	10 20	10 6	5 13	2	5	7
31 Tue.	4 29	2 4	6 6	5 52	11 39	5 49	6 20	5 49	11 29	5 47	6 23	5 47	11 19	5 44	6 26	11 14	11 6	6 9	3	5	8

APRIL 1959

Apr.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			a-factor, moonset				
		Sun	rise	set	Sun	rise	set	Sun	rise	set	Sun	rise	set	Moon's upper transit	90°	105°	120°	
1 Wed.	4 11	m	5 51	h m	12 37	h m	5 48	h m	6 21	h m	12 29	h m	5 42	h m	h m	m	m	m
2 Thu.	3 53	2	5 50	6 19	1 32	5 46	6 21	1 41	5 45	6 20	1 28	5 42	6 20	5 40	6 27	3	5	8
3 Fri.	3 35	1	5 48	6 20	2 18	5 45	6 22	2 26	5 46	6 22	2 15	5 42	6 21	5 39	4	5	8	
4 Sat.	3 17	1	5 47	6 20	3 39	5 43	6 23	3 42	5 43	6 23	3 27	5 39	6 30	5 37	5	7	7	
5 Sun.	3 0	1	5 46	6 21	4 15	5 42	6 24	4 17	5 42	6 24	3 25	5 41	6 27	5 37	6	5	7	
6 Mon.	2 42	1	5 45	6 22	4 50	5 41	6 25	4 50	5 41	6 25	3 21	5 39	6 32	5 35	7	5	7	
7 Tue.	2 25	1	5 44	6 22	5 24	5 40	6 26	5 22	5 40	6 26	2 21	5 39	6 34	5 35	8	5	7	
8 Wed.	2 8	1	5 42	6 23	5 59	5 38	6 26	5 55	5 37	6 31	2 21	5 38	6 36	5 31	9	5	7	
9 Thu.	1 52	1	5 41	6 23	6 35	5 37	6 27	6 29	5 37	6 29	2 21	5 38	6 37	5 31	10	5	7	
10 Fri.	1 35	2	5 40	6 24	7 12	5 36	6 28	7 5	5 36	6 28	2 21	5 39	6 38	5 31	11	5	7	
11 Sat.	1 19	2	5 39	6 25	7 52	5 35	6 29	7 44	5 35	6 29	2 21	5 40	6 39	5 31	12	5	7	
12 Sun.	1 3	2	5 38	6 25	8 34	5 33	6 30	8 25	5 33	6 30	2 21	5 41	6 39	5 31	13	5	7	
13 Mon.	0 47	2	5 36	6 26	9 20	5 32	6 30	9 10	5 32	6 30	2 21	5 42	6 39	5 31	14	5	7	
14 Tue.	0 32	2	5 35	6 26	10 9	5 30	6 31	9 59	5 30	6 31	2 21	5 43	6 39	5 31	15	5	7	
15 Wed.	0 17	2	5 34	6 27	11 0	5 29	6 32	10 51	5 29	6 32	2 21	5 44	6 39	5 31	16	5	7	
16 Thu.	0 2	2	5 33	6 28	11 55	5 28	6 33	11 47	5 28	6 33	2 21	5 45	6 39	5 31	17	5	7	
17 Fri.	0 12	3	5 32	6 28	12 52	5 27	6 34	12 46	5 27	6 34	2 21	5 46	6 39	5 31	18	5	7	
18 Sat.	0 26	3	5 31	6 29	1 52	5 25	6 34	1 47	5 25	6 34	2 21	5 47	6 39	5 31	19	5	7	
19 Sun.	0 40	3	5 30	6 29	2 53	5 24	6 35	2 51	5 24	6 35	2 21	5 48	6 39	5 31	20	5	7	
20 Mon.	0 53	3	5 29	6 30	3 57	5 23	6 36	3 57	5 23	6 36	2 21	5 49	6 39	5 31	21	5	7	
21 Tue.	1 6	3	5 28	6 31	5 3	5 22	6 37	5 6	5 22	6 37	2 21	5 50	6 39	5 31	22	5	7	
22 Wed.	1 19	3	5 27	6 31	6 10	5 21	6 38	6 16	5 21	6 38	2 21	5 51	6 39	5 31	23	5	7	
23 Thu.	1 31	3	5 26	6 32	7 19	5 19	6 39	7 26	5 19	6 39	2 21	5 52	6 39	5 31	24	5	7	
24 Fri.	1 43	3	5 25	6 32	8 27	5 18	6 39	8 35	5 18	6 39	2 21	5 53	6 39	5 31	25	5	7	
25 Sat.	1 54	3	5 24	6 33	9 32	5 17	6 40	9 41	5 17	6 40	2 21	5 54	6 39	5 31	26	5	7	
26 Sun.	2 4	2	5 23	6 34	10 32	5 16	6 41	10 43	5 16	6 41	2 21	5 55	6 39	5 31	27	5	7	
27 Mon.	2 15	2	5 22	6 34	11 28	5 15	6 42	11 36	5 15	6 42	2 21	5 56	6 39	5 31	28	5	7	
28 Tue.	2 24	2	5 21	6 35	12 24	5 14	6 43	12 31	5 14	6 43	2 21	5 57	6 39	5 31	29	5	7	
29 Wed.	2 33	2	5 20	6 35	1 0	5 13	6 44	1 6	5 13	6 44	2 21	5 58	6 39	5 31	30	5	7	
30 Thu.	2 42	2	5 19	6 36	1 0	5 12	6 45	1 6	5 12	6 45	2 21	5 59	6 39	5 31	31	5	7	

MAY 1959

May	Sun fast	LOCAL CIVIL TIME Latitude 30° n.						LOCAL CIVIL TIME Latitude 35° n.						LOCAL CIVIL TIME Latitude 40° n.						LOCAL CIVIL TIME Latitude 45° n.						a-factor, moonset		
		Sun	rise	set	Moon-rise	Moon-set	Sun	rise	set	Moon-rise	Moon-set	Sun	rise	set	Moon-rise	Moon-set	Sun	rise	set	Moon-rise	Moon-set	Moon's upper transit						
																							90°	105°	120°	90°	105°	120°
1 Fri.	m s	2 50	5 18	6 37	h m	1 40	1 23	h m	1 20	1 44	h m	1 15	1 50	h m	1 11	7 30	h m	m	m	m	m	m						
2 Sat.	2 57	1 3	5 17	6 37	2 16	2 18	5 8	6 55	2 16	2 19	6 55	2 14	2 22	5	7	7 30	h m	2 5	7	7	7							
3 Sun.	3 4	1 2	5 16	6 38	2 52	3 11	5 9	6 46	2 53	3 11	6 56	3 12	2 53	5	7	8 15	h m	2 5	7	7	7							
4 Mon.	3 11	1 2	5 15	6 38	3 26	4 4	5 7	6 47	3 25	4 6	6 57	3 23	3 23	5	7	8 59	h m	2 5	7	7	7							
5 Tue.	3 17	1 3	5 14	6 39	4 0	4 56	5 6	6 48	3 57	5 0	6 58	3 53	3 53	5	7	10 23	h m	2 5	7	7	7							
6 Wed.	3 22	1 3	5 13	6 40	4 35	5 48	5 5	6 49	4 30	5 54	6 59	4 25	4 25	5	7	10 46	h m	2 5	7	7	7							
7 Thu.	3 27	2 3	5 12	6 41	5 12	6 40	5 4	6 50	5 6	6 47	7 1	4 44	4 44	5	7	11 9	h m	2 5	7	7	7							
8 Fri.	3 31	2 3	5 12	6 41	5 51	7 31	5 3	6 50	5 43	7 40	7 14	4 49	4 53	5	7	11 54	h m	2 4	7	7	7							
9 Sat.	3 34	2 4	5 11	6 42	6 32	8 21	5 2	6 51	6 23	8 31	7 2	4 53	4 57	6	8	12 39	h m	2 4	6	6	6							
10 Sun.	3 37	2 4	5 10	6 43	7 17	9 11	5 1	6 52	7 8	9 21	7 3	4 51	4 51	6	8	1 26	h m	2 4	6	6	6							
11 Mon.	3 40	2 4	5 9	6 44	8 4	9 58	5 0	6 53	7 54	10 7	7 4	4 50	4 50	6	8	2 14	h m	2 4	6	6	6							
12 Tue.	3 42	2 4	5 9	6 44	8 55	10 43	4 59	6 54	8 45	10 52	7 5	4 49	4 49	5	7	3 50	h m	2 3	5	5	5							
13 Wed.	3 43	2 5	5 8	6 45	9 47	11 27	4 59	6 54	9 39	11 34	7 6	4 48	4 48	5	7	4 39	h m	2 3	5	5	5							
14 Thu.	3 44	3 5	5 8	6 45	10 43	.....	4 58	6 55	10 35	.....	7 7	4 47	4 47	4	6	5 27	h m	2 3	4	4	4					
15 Fri.	3 44	3 5	5 7	6 46	11 39	0 7	4 57	6 56	11 34	0 14	7 8	4 46	4 46	4	6	6 16	h m	2 3	4	4	4							
16 Sat.	3 43	3 5	5 6	6 47	12 38	0 47	4 56	6 57	12 35	0 52	7 9	4 45	4 45	3	5	7 51	h m	3	4	4	4							
17 Sun.	3 42	3 6	5 6	6 47	1 39	1 27	4 55	6 58	1 38	1 29	7 10	4 44	4 44	3	5	8 48	h m	3	4	4	4							
18 Mon.	3 41	3 6	5 5	6 48	2 42	2 8	4 55	6 58	2 43	2 7	7 10	4 43	4 43	3	5	9 42	h m	3	4	4	4							
19 Tue.	3 39	3 6	5 5	6 48	3 47	2 49	4 54	6 59	3 51	2 47	7 11	4 42	4 42	3	5	10 40	h m	3	4	4	4							
20 Wed.	3 37	3 6	5 4	6 49	4 54	3 33	4 53	7 0	5 1	3 28	7 12	4 41	4 41	4	6	11 40	h m	3	4	4	4							
21 Thu.	3 33	3 6	5 4	6 50	6 2	4 22	4 52	7 1	6 11	4 14	7 13	4 40	4 40	4	6	12 40	h m	3	4	4	4							
22 Fri.	3 30	3 6	5 3	6 50	7 10	5 14	4 52	7 2	7 20	5 5	7 14	4 39	4 39	5	7	1 40	h m	3	4	4	4							
23 Sat.	3 26	3 5	5 3	6 51	8 15	6 11	4 51	7 2	8 26	6 1	7 15	4 37	4 37	5	7	2 40	h m	3	4	4	4							
24 Sun.	3 21	2 4	5 2	6 51	9 14	7 12	4 51	7 3	9 25	7 2	7 16	4 38	4 38	5	8	3 40	h m	3	5	5	5							
25 Mon.	3 16	2 4	5 2	6 52	10 8	8 14	4 50	7 4	10 17	8 4	7 17	4 37	4 37	5	8	4 40	h m	3	5	5	5							
26 Tue.	3 10	2 3	5 2	6 53	10 56	9 17	4 50	7 5	11 3	9 8	7 18	4 36	4 36	5	8	5 40	h m	3	5	5	5							
27 Wed.	3 4	1 3	5 1	6 53	11 38	10 17	4 49	7 5	11 44	10 11	7 19	4 36	4 36	5	8	6 40	h m	3	5	5	5							
28 Thu.	2 57	1 3	5 1	6 54	.....	11 16	4 49	7 6	.....	.....	7 19	4 35	4 35	5	8	7 40	h m	3	5	5	5				
29 Fri.	2 50	1 3	5 0	6 54	0 17	12 12	4 48	7 6	0 20	12 10	7 20	4 35	4 35	5	7	8 40	h m	3	5	7	7							
30 Sat.	2 42	1 2	5 0	6 55	0 53	1 6	4 48	7 7	0 55	1 6	7 21	4 34	4 34	5	7	9 40	h m	2	5	7	7							
31 Sun.	2 34	1 2	5 0	6 56	1 28	2 0	4 48	7 8	1 28	2 1	7 22	4 34	4 34	5	7	10 40	h m	2	5	7	7							

JUNE 1959

June	Sun fast	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			a-factor, moonset		
		Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Sun rise	Sun set	Moon rise	Moon set	Moon's upper transit	90°	
															105°	120°
1 Mon.	m s	2 26	1 3	4	2 52	h m	7 8	2 0	2 55	h m	7 22	1 56	3 0	h m	m	m
2 Tue.	2 17	1 3	4	4 59	6 57	2 36	7 9	2 32	3 49	4 33	7 23	2 28	3 55	4 16	2 5	7
3 Wed.	2 7	1 3	4	4 59	6 57	3 13	4 36	3 6	4 43	4 32	7 24	3 0	4 50	4 16	2 5	7
4 Thu.	1 58	2 3	5	4 59	6 58	3 50	4 47	7 10	5 27	4 47	7 24	3 35	5 45	4 15	2 4	7
5 Fri.	1 47	2	5	4 59	6 58	4 31	4 7	7 11	6 18	4 47	7 25	4 13	6 38	4 20	2	6
6 Sat.	1 37	2	4	4 59	6 59	5 15	7 8	7 11	7 8	4 47	7 25	4 54	7 29	4 41	2	4
7 Sun.	1 26	2	4	4 58	6 59	6 1	7 57	7 12	8 6	4 46	7 26	5 40	8 17	4 14	2	4
8 Mon.	1 15	2	4	4 58	7 0	6 51	8 42	7 12	8 52	4 46	7 26	6 30	9 2	4 13	2	4
9 Tue.	1 4	2	5	4 58	7 0	7 43	9 27	7 13	9 35	4 31	7 27	7 25	9 44	4 13	2	5
10 Wed.	0 52	2	5	4 58	7 0	8 38	10 8	7 13	8 30	4 46	7 28	8 21	10 22	4 13	2	4
11 Thu.	0 40	3	5	4 58	7 1	9 34	10 48	7 14	9 27	4 46	7 28	9 21	10 58	4 13	1	3
12 Fri.	0 28	3	5	4 58	7 1	10 30	11 27	7 14	10 26	4 45	7 29	10 22	11 33	4 13	1	3
13 Sat.	0 15	3	5	4 58	7 2	11 29	.....	7 15	11 27	4 45	7 29	11 25	.....	4 13	1	3
14 Sun.	0 3	3	6	4 58	7 2	12 29	0 5	7 15	12 29	4 45	7 30	12 30	0 7	4 13	1	3
15 Mon.	SLOW	0 9	3	4 58	7 2	1 31	0 45	7 15	1 34	4 45	7 30	1 37	0 41	4 13	2	3
16 Tue.	0 22	3	6	4 58	7 2	2 35	1 26	7 15	2 40	4 45	7 31	2 46	1 18	4 13	2	3
17 Wed.	0 35	3	6	4 59	7 3	3 41	2 11	7 16	3 48	4 46	7 31	3 56	1 57	4 13	2	3
18 Thu.	0 48	3	6	4 59	7 3	4 48	3 0	7 16	4 56	4 46	7 32	5 6	2 42	4 13	2	4
19 Fri.	1 1	3	5	4 59	7 3	5 53	3 53	7 16	6 3	4 46	7 32	6 15	3 32	4 13	2	4
20 Sat.	1 14	2	5	4 59	7 3	6 56	4 52	7 16	7 7	4 46	7 32	7 19	4 30	4 13	2	4
21 Sun.	1 26	2	4	4 59	7 4	7 54	5 53	7 17	8 4	4 46	7 32	8 15	5 33	4 13	3	5
22 Mon.	1 39	2	4	4 59	7 4	8 46	6 57	7 17	8 54	4 47	7 33	9 3	6 38	4 14	3	5
23 Tue.	1 52	2	4	5 0	7 5	9 33	8 0	7 18	9 39	4 47	7 33	9 46	7 14	4 14	3	5
24 Wed.	2 5	1	3	4 59	7 5	10 14	9 1	7 18	10 19	4 47	7 33	10 23	8 50	4 14	3	5
25 Thu.	2 18	1	3	4 59	7 5	10 52	10 1	7 18	10 55	4 47	7 33	10 57	9 54	4 14	3	5
26 Fri.	2 31	1	3	4 59	7 5	11 28	10 57	7 18	11 29	4 47	7 33	11 28	10 54	4 14	3	5
27 Sat.	2 43	1	2	4 59	7 5	.....	11 52	7 18	.....	4 48	7 33	11 59	11 54	4 15	2	5
28 Sun.	2 56	1	3	4 59	7 5	0 3	12 46	7 18	0 2	4 48	7 33	12 52	4 15	4 15	2	5
29 Mon.	3 8	1	3	4 59	7 5	0 37	1 38	7 18	0 34	4 48	7 33	0 30	1 48	4 15	2	5
30 Tue.	3 20	1	3	4 59	7 5	1 13	2 30	7 18	1 7	4 48	7 33	1 2	2 43	4 16	2	5

JULY 1959

	Sun slow	LOCAL CIVIL TIME Latitude 30° n.			LOCAL CIVIL TIME Latitude 35° n.			LOCAL CIVIL TIME Latitude 40° n.			LOCAL CIVIL TIME Latitude 45° n.			a-factor, moonset			
		Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set				Moon's upper transit
July	m	90°	105°	120°	m	m	m	m	m	m	m	m	m	m	90°	105°	120°
		2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5
		3	4	5	6	3	4	5	6	3	4	5	6	3	4	5	6
		4	5	6	7	4	5	6	7	4	5	6	7	4	5	6	7
		5	6	7	8	5	6	7	8	5	6	7	8	5	6	7	8	9
1 Wed.	4 18	2 4	6 5	4 47	4 51	7 18	3 48	6 49	4 37	7 32	4 26	7 0	4 19	7 50	4 12	7 13	11 44
2 Thu.	4 28	2 5	7 6	5 38	4 51	7 18	5 29	7 34	4 37	7 32	5 19	7 44	4 20	7 49	5 6	7 55	12 33
3 Fri.	4 38	2 5	7 6	6 33	4 52	7 17	6 25	8 16	4 38	7 31	6 15	8 24	4 20	7 49	6 4	8 33	1 22
4 Sat.	4 48	3 5	8 7	7 29	4 52	7 17	7 22	8 55	4 38	7 31	7 15	9 1	4 21	7 48	7 5	9 9	2 11
5 Sun.	4 58	3 5	8 7	8 26	4 53	7 17	8 20	9 32	4 39	7 31	8 16	9 36	4 22	7 48	8 10	9 41	3 0
6 Mon.	5 7	3 5	8 7	9 24	4 54	7 17	9 21	10 8	4 40	7 31	9 18	10 11	4 23	7 47	9 15	10 12	3 48
7 Tue.	5 16	3 5	8 7	10 22	4 54	7 16	10 22	10 45	4 40	7 30	10 22	10 44	4 24	7 47	10 21	10 44	4 37
8 Wed.	5 24	3 5	8 7	11 23	4 55	7 16	11 25	11 22	4 41	7 30	11 27	11 19	4 24	7 46	11 29	11 16	5 27
9 Thu.	5 32	3 6	8 7	12 25	4 55	7 15	12 29	.....	4 41	7 29	12 33	11 56	4 25	7 46	12 39	11 50	6 18
10 Fri.	5 39	3 6	8 7	1 28	4 56	7 15	1 34	0 2	4 42	7 29	1 41	.....	4 26	7 45	1 56	.....	7 12
11 Sat.	5 46	3 6	8 7	2 32	4 57	7 15	2 40	0 46	4 43	7 28	2 49	0 37	4 27	7 44	3 0	0 28	8 8
12 Sun.	5 52	3 5	8 7	3 36	4 57	7 14	3 46	1 34	4 44	7 28	3 57	1 24	4 28	7 43	4 9	1 11	9 7
13 Mon.	5 58	3 5	8 7	4 39	4 58	7 14	4 49	2 27	4 44	7 27	5 0	2 16	4 28	7 43	5 13	2 3	10 7
14 Tue.	6 3	2 4	7 5	5 39	4 58	7 13	5 48	3 26	4 45	7 27	6 0	3 14	4 29	7 42	6 15	3 1	11 7
15 Wed.	6 7	2 4	7 5	6 33	4 59	7 13	6 42	4 28	4 46	7 26	6 52	4 18	4 30	7 41	7 4	4 5	.....
16 Thu.	6 12	2 3	5 5	7 23	5 0	7 12	7 30	5 33	4 47	7 25	7 38	5 23	4 31	7 40	7 48	5 12	0 6
17 Fri.	6 15	2 3	5 5	8 8	6 44	7 12	8 12	6 37	4 48	7 24	8 19	6 30	4 32	7 39	8 26	6 21	1 2
18 Sat.	6 18	1 3	4 4	8 48	7 45	7 11	8 51	7 41	4 48	7 24	8 55	7 35	4 34	7 39	8 59	7 30	1 54
19 Sun.	6 21	1 3	4 4	9 25	8 44	7 11	9 27	8 41	4 49	7 23	9 28	8 39	4 35	7 38	9 30	8 36	2 44
20 Mon.	6 23	1 3	4 4	10 1	9 41	7 10	10 1	9 41	4 50	7 22	9 59	9 40	4 36	7 37	9 59	9 40	3 31
21 Tue.	6 24	1 3	4 4	10 37	10 36	7 9	10 34	10 38	4 51	7 21	10 31	10 40	4 37	7 36	10 27	10 42	4 16
22 Wed.	6 25	1 3	4 4	11 12	11 29	7 8	11 8	11 33	4 52	7 20	11 3	11 38	4 38	7 35	10 56	11 42	5 1
23 Thu.	6 25	1 3	4 4	11 49	12 22	7 7	11 43	12 27	4 53	7 19	11 35	12 34	4 39	7 33	11 27	12 41	5 45
24 Fri.	6 26	1 3	4 4	1 14	1 14	7 7	.....	1 21	4 54	7 19	0 11	1 29	4 40	7 32	0 2	1 39	6 29
25 Sat.	6 27	2 3	5 5	2 6	2 6	7 6	0 20	2 14	4 55	7 18	0 11	2 24	4 41	7 31	0 0	2 35	7 15
26 Sun.	6 28	2 3	5 5	2 56	2 56	7 5	1 0	3 6	4 56	7 17	0 50	3 17	4 42	7 30	0 38	3 29	8 1
27 Mon.	6 29	2 3	5 5	3 46	3 46	7 4	1 44	3 56	4 57	7 16	1 33	4 7	4 43	7 29	1 20	4 20	8 49
28 Tue.	6 30	2 4	6 6	4 53	4 53	7 5	2 58	4 68	5 58	7 15	2 45	5 1	4 44	7 28	2 11	5 11	9 00
29 Wed.	6 31	2 4	6 6	5 44	5 44	7 6	3 49	5 59	6 49	7 14	3 36	4 66	5 54	7 27	3 02	6 02	9 51
30 Thu.	6 32	2 4	6 6	6 34	6 34	7 7	4 40	6 49	7 38	7 13	4 25	5 55	6 43	7 26	3 51	6 51	10 42
31 Fri.	6 33	2 4	6 6	7 24	7 24	7 8	5 30	7 38	8 28	7 12	5 15	6 44	7 32	7 20	4 40	7 30	11 32

AUGUST 1959

Aug.	Sun slow	a-factor, moonrise		LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				a-factor, moonset	
		m	s	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon's upper transit	90°	105°	120°
1 Sat.	6 17	2	4	6	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m
2 Sun.	6 14	2	4	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
3 Mon.	6 10	2	5	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
4 Tue.	6 5	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
5 Wed.	6 0	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
6 Thu.	5 54	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	1	3
7 Fri.	5 48	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	1	3
8 Sat.	5 41	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	1	3
9 Sun.	5 33	3	6	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
10 Mon.	5 25	3	6	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
11 Tue.	5 16	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
12 Wed.	5 7	3	5	8	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
13 Thu.	4 57	3	5	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
14 Fri.	4 47	2	5	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
15 Sat.	4 36	2	4	6	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
16 Sun.	4 24	2	4	5	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
17 Mon.	4 12	2	3	5	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
18 Tue.	3 59	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
19 Wed.	3 46	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
20 Thu.	3 32	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
21 Fri.	3 18	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
22 Sat.	3 3	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
23 Sun.	2 48	1	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
24 Mon.	2 33	2	3	4	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
25 Tue.	2 17	2	3	5	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
26 Wed.	2 1	2	4	5	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
27 Thu.	1 44	2	4	6	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
28 Fri.	1 27	2	4	6	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
29 Sat.	1 9	2	4	6	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
30 Sun.	0 51	2	5	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4
31 Mon.	0 33	3	5	7	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	2	4

SEPTEMBER 1959

Sept.	Sun slow	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				a-factor, moonset 90° 105° 120°				
		Sun	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Sun- set	Sun- rise	Moon- rise	Moon- set	Sun- rise	Moon- rise	Moon- set	Moon's upper transit						
1 Tue.	m s 0 15 FAST	m	5 36	6 23	4 6	5 24	h m	5 32	6 27	4 0	5 29	h m	5 27	6 33	3 53	h m	5 35	h m	5 42	10 48	m	3 4
2 Wed.	0 4	3	5 37	6 22	5 5	6 5	5 33	6 26	5 1	6 8	5 28	6 31	4 56	5 22	6 37	4 50	6 16	11 38	2	3 4		
3 Thu.	0 23	3	5 38	6 21	6 6	6 45	5 34	6 25	6 3	6 46	5 29	6 29	6 1	5 23	6 35	5 58	6 49	12 28	1	3 4		
4 Fri.	0 42	3	5 38	6 20	7 7	7 26	5 34	6 24	7 8	7 24	5 30	6 28	7 8	5 24	6 33	7 8	7 21	1 19	2	3 4		
5 Sat.	1 12	3	5 39	6 18	8 10	8 7	5 35	6 22	8 13	8 4	5 31	6 26	8 15	5 26	6 32	8 19	7 54	2 11	2	3 5		
6 Sun.	1 22	3	5 39	6 17	9 13	8 51	5 35	6 21	9 18	8 45	5 32	6 25	9 23	5 27	6 30	9 30	8 31	3 4	2	3 5		
7 Mon.	1 42	3	5 40	6 16	10 17	9 37	5 36	6 20	10 24	9 30	5 33	6 23	10 31	5 28	6 28	10 41	9 11	3 59	2	4 6		
8 Tue.	2 2	3	5 40	6 15	11 20	10 27	5 37	6 18	11 28	10 19	5 34	6 21	11 39	5 29	6 26	11 50	9 56	4 55	2	4 6		
9 Wed.	2 22	3	5 41	6 14	12 22	11 21	5 38	6 17	12 32	11 12	5 35	6 20	12 43	5 30	6 24	12 55	10 47	5 52	2	5 7		
10 Thu.	2 43	2	5 41	6 12	1 22	.....	5 38	6 15	1 32	.....	5 35	6 18	1 43	5 32	6 22	1 57	11 44	6 49	3	5 7
11 Fri.	3 4	2	5 42	6 11	2 17	0 18	5 39	6 14	2 27	0 8	5 36	6 17	2 37	5 33	6 20	2 50	.....	7 46	3	5 8	
12 Sat.	3 25	2	5 42	6 10	3 8	1 17	5 40	6 12	3 17	1 9	5 37	6 15	3 26	5 34	6 18	3 37	0 45	8 42	3	5 8		
13 Sun.	3 46	2	5 43	6 9	3 55	2 18	5 41	6 11	4 2	2 10	5 38	6 13	4 9	5 35	6 16	4 19	1 50	9 35	3	5 8		
14 Mon.	4 7	2	5 43	6 8	4 37	3 18	5 42	6 9	4 43	3 12	5 39	6 12	4 48	5 36	6 14	4 55	2 57	10 25	3	5 8		
15 Tue.	4 29	1	5 44	6 6	5 17	4 17	5 42	6 8	5 20	4 13	5 40	6 10	5 24	5 38	6 13	5 28	4 3	11 14	3	5 8		
16 Wed.	4 50	1	5 44	6 5	5 55	5 16	5 43	6 6	5 56	5 13	5 41	6 9	5 57	5 39	6 11	5 58	5 8	.....	3	5 8	
17 Thu.	5 11	1	5 45	6 4	6 31	6 12	5 44	6 5	6 30	6 12	5 42	6 7	6 29	5 40	6 9	6 28	6 12	0 1	3	5 8		
18 Fri.	5 33	1	5 46	6 3	7 7	7 7	5 45	6 4	7 4	7 10	5 43	6 5	7 1	5 41	6 7	6 57	7 15	0 47	2	5 7		
19 Sat.	5 54	1	5 46	6 2	7 44	8 2	5 45	6 2	7 38	8 6	5 44	6 4	7 33	5 42	6 5	7 27	8 15	1 32	2	5 7		
20 Sun.	6 15	2	5 47	6 0	8 21	8 55	5 46	6 1	8 15	9 1	5 45	6 2	8 7	5 44	6 3	7 59	9 15	2 17	2	5 7		
21 Mon.	6 37	2	5 47	5 59	9 1	9 48	5 46	5 59	8 52	9 55	5 46	6 1	8 44	5 45	6 1	8 34	10 13	3 2	2	5 7		
22 Tue.	6 58	2	5 48	5 58	9 42	10 39	5 47	5 58	9 33	10 48	5 47	5 59	9 23	5 46	5 59	9 12	11 9	3 48	2	4 6		
23 Wed.	7 19	2	5 49	5 57	10 27	11 29	5 48	5 57	10 17	11 38	5 48	5 57	10 6	5 47	5 57	9 53	12 2	4 35	2	4 6		
24 Thu.	7 40	2	5 49	5 55	11 13	12 18	5 49	5 55	11 3	12 28	5 49	5 55	10 42	5 48	5 55	10 40	12 52	5 22	2	4 6		
25 Fri.	8 1	2	5 50	5 54	.....	1 6	5 49	5 54	11 54	1 15	5 50	5 54	11 43	5 50	5 54	11 31	1 38	6 10	2	4 5	
26 Sat.	8 22	2	5 50	5 52	0 4	1 51	5 50	5 52	.....	2 0	5 51	5 52	.....	5 51	5 52	.....	2 21	6 58	2	3 5
27 Sun.	8 42	2	5 51	5 51	0 56	2 35	5 51	5 51	0 48	2 42	5 52	5 50	0 38	5 52	5 50	0 27	3 1	7 47	2	3 5		
28 Mon.	9 3	3	5 51	5 50	1 52	3 17	5 52	5 50	1 44	3 22	5 53	5 48	1 37	5 53	5 48	1 27	3 37	8 36	2	3 5		
29 Tue.	9 23	3	5 52	5 49	2 49	3 58	5 53	5 48	2 44	4 2	5 54	5 47	2 38	5 54	5 46	2 31	4 12	9 26	2	3 4		
30 Wed.	9 42	3	5 52	5 47	3 49	4 38	5 53	5 47	3 46	4 40	5 54	5 45	3 43	5 56	5 44	3 38	4 45	10 16	2	3 4		

OCTOBER 1959

Oct.	Sun fast	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit		a-factor, moonset							
		Sun-rise		Moon-rise set		Sun-rise		Moon-rise set		Sun-rise		Moon-rise set		Sun-rise		Moon-rise set											
		m	s	m	s	m	s	m	s	m	s	m	s	m	s	m	s	m	s	m	s						
1 Thu.	10 2	3	6	8	53	5	46	4	51	5	19	5	54	4	50	5	18	11	7	2	3	4	4	m	m		
2 Fri.	10 21	3	6	9	53	5	45	5	54	6	1	5	55	5	59	5	58	12	0	2	3	5	5	m	m		
3 Sat.	10 40	3	6	9	54	5	44	6	59	6	1	5	56	5	59	5	58	12	54	2	3	5	5	m	m		
4 Sun.	10 59	3	6	9	55	5	43	8	5	7	31	5	57	5	58	5	58	1	50	2	4	6	6	m	m		
5 Mon.	11 17	3	6	8	55	5	41	9	10	8	22	5	57	5	59	6	2	2	47	2	4	6	6	m	m		
6 Tue.	11 35	3	5	8	55	5	40	10	14	9	16	5	58	5	58	6	3	3	46	2	5	7	7	m	m		
7 Wed.	11 53	2	5	7	56	5	39	11	16	10	13	6	0	5	59	6	4	4	5	7	7	7	7	m	m		
8 Thu.	12 10	2	4	6	57	5	38	12	13	11	12	6	0	6	0	5	5	5	42	3	5	8	8	m	m		
9 Fri.	12 27	2	4	6	57	5	37	1	5	6	1	5	34	1	0	6	5	5	38	3	5	8	8	m	m		
10 Sat.	12 44	2	3	5	58	5	35	1	53	0	12	6	1	5	33	2	1	6	31	3	5	8	8	m	m		
11 Sun.	13 0	2	3	5	58	5	34	2	37	1	12	6	2	5	31	2	4	6	29	2	5	7	7	m	m		
12 Mon.	13 15	1	3	4	59	5	33	3	17	2	10	6	3	5	30	3	5	6	28	3	5	8	8	m	m		
13 Tue.	13 30	1	3	4	6	0	5	32	3	54	3	8	4	6	5	29	3	5	27	4	0	5	8	m	m		
14 Wed.	13 45	1	3	4	6	1	5	31	4	30	4	4	6	5	28	4	3	6	26	5	18	4	7	m	m		
15 Thu.	13 59	1	3	4	6	1	5	30	5	6	4	5	5	26	5	4	5	1	25	2	5	7	7	m	m		
16 Fri.	14 13	1	3	4	6	2	5	29	5	42	5	53	6	6	5	25	5	16	24	3	5	7	7	m	m		
17 Sat.	14 26	1	3	4	6	3	5	28	6	19	6	47	6	7	5	24	6	15	23	4	5	7	7	m	m		
18 Sun.	14 38	2	3	5	6	4	5	27	6	57	7	40	6	8	5	23	6	14	22	5	7	7	7	m	m		
19 Mon.	14 50	2	3	5	6	4	5	26	7	38	8	32	6	9	5	22	7	12	11	6	8	8	8	m	m		
20 Tue.	15 1	2	4	5	6	5	5	25	8	21	9	22	6	9	5	20	8	11	9	4	5	7	7	m	m		
21 Wed.	15 12	2	4	6	6	5	5	24	9	7	10	12	6	10	5	19	8	57	10	22	6	6	6	m	m		
22 Thu.	15 21	2	4	6	6	6	5	23	9	55	11	0	6	11	5	18	9	46	11	9	6	6	6	m	m		
23 Fri.	15 31	2	5	7	6	7	5	22	10	46	11	45	6	12	5	17	10	37	11	54	6	6	6	m	m		
24 Sat.	15 39	2	5	7	6	8	5	21	11	39	12	29	6	13	5	16	11	32	12	37	6	5	5	m	m		
25 Sun.	15 47	2	5	7	6	8	5	20	.....	.....	.....	.....	6	14	5	14	.....	.....	.....	.....	.....	.....	.....	m	m
26 Mon.	15 54	3	5	8	6	9	5	19	0	35	1	50	6	15	5	13	0	28	1	56	6	22	2	4	m	m	
27 Tue.	16 0	3	5	8	6	10	5	18	1	32	2	30	6	16	5	12	1	29	2	34	4	57	1	3	m	m	
28 Wed.	16 6	3	5	8	6	11	5	17	2	32	3	10	6	17	5	11	2	28	3	31	6	24	5	4	m	m	
29 Thu.	16 11	3	6	9	6	11	5	16	3	33	3	51	6	18	5	10	3	33	3	49	6	25	5	3	m	m	
30 Fri.	16 15	3	6	9	6	12	5	16	4	37	4	34	6	18	5	9	4	39	4	30	6	26	5	4	m	m	
31 Sat.	16 18	3	6	9	6	12	5	15	5	43	5	20	6	19	5	8	5	48	5	14	6	27	5	0	4	m	m

NOVEMBER 1959

Nov.	Sun fast	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				a-factor, moonset		
		Sun- rise	Moon- set	Moon- rise	Sun- set	Sun- rise	Moon- set	Moon- rise	Sun- set	Sun- rise	Moon- set	Moon- rise	Sun- set	Sun- rise	Moon- set	Moon- rise	Sun- set	90°	105°	120°
1 Sun.	16 21	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
2 Mon.	16 22	3 6	6 10	6 50	5 14	6 13	5 14	6 50	5 14	6 10	6 50	5 14	6 13	5 14	6 10	6 50	5 14	2	4	6
3 Tue.	16 23	3 6	9 3	7 58	5 13	6 14	5 13	7 58	5 13	6 14	5 13	7 58	5 13	6 14	5 13	7 58	5 13	2	4	6
4 Wed.	16 23	3 5	8 2	7 58	5 12	6 15	5 12	7 58	5 12	6 15	5 12	7 58	5 12	6 15	5 12	7 58	5 12	2	5	7
5 Thu.	16 22	2 4	10 5	11 1	5 11	6 16	5 11	11 1	5 11	6 16	5 11	11 1	5 11	6 16	5 11	11 1	5 11	2	5	8
6 Fri.	16 21	2 4	11 52	11 5	5 10	6 17	5 10	11 52	11 5	6 17	5 10	11 52	11 5	6 17	5 10	11 52	11 5	2	5	8
7 Sat.	16 19	2 3	12 37	12 3	5 9	6 18	5 9	12 37	12 3	6 18	5 9	12 37	12 3	6 18	5 9	12 37	12 3	2	5	8
8 Sun.	16 16	1 3	0 5	0 5	6 27	6 19	5 8	0 5	6 27	6 19	5 8	0 5	6 27	6 19	5 8	0 5	6 27	1	3	4
9 Mon.	16 12	1 3	1 56	1 56	6 28	6 20	5 8	1 56	6 28	6 20	5 8	1 56	6 28	6 20	5 8	1 56	6 28	1	3	4
10 Tue.	16 7	1 3	2 32	2 32	6 29	6 21	5 8	2 32	6 29	6 21	5 8	2 32	6 29	6 21	5 8	2 32	6 29	1	3	4
11 Wed.	16 1	1 3	3 42	3 42	6 30	6 21	5 7	3 42	6 30	6 21	5 7	3 42	6 30	6 21	5 7	3 42	6 30	1	3	4
12 Thu.	15 55	1 3	4 19	4 19	6 32	6 23	5 6	4 19	6 32	6 23	5 6	4 19	6 32	6 23	5 6	4 19	6 32	1	3	4
13 Fri.	15 47	1 3	4 56	4 56	6 33	6 24	5 5	4 56	6 33	6 24	5 5	4 56	6 33	6 24	5 5	4 56	6 33	1	3	4
14 Sat.	15 39	2 3	5 36	5 36	6 34	6 25	5 4	5 36	6 34	6 25	5 4	5 36	6 34	6 25	5 4	5 36	6 34	2	3	5
15 Sun.	15 30	2 3	6 18	6 18	6 35	6 26	5 4	6 18	6 35	6 26	5 4	6 18	6 35	6 26	5 4	6 18	6 35	2	3	5
16 Mon.	15 20	2 4	7 18	7 18	6 36	6 27	5 3	7 18	6 36	6 27	5 3	7 18	6 36	6 27	5 3	7 18	6 36	2	4	6
17 Tue.	15 10	2 4	8 8	8 8	6 37	6 28	5 3	8 8	6 37	6 28	5 3	8 8	6 37	6 28	5 3	8 8	6 37	2	4	6
18 Wed.	14 58	2 4	8 56	8 56	6 38	6 29	5 3	8 56	6 38	6 29	5 3	8 56	6 38	6 29	5 3	8 56	6 38	2	4	6
19 Thu.	14 46	2 4	9 42	9 42	6 39	6 30	5 2	9 42	6 39	6 30	5 2	9 42	6 39	6 30	5 2	9 42	6 39	2	4	6
20 Fri.	14 33	2 5	10 26	10 26	6 40	6 31	5 2	10 26	6 40	6 31	5 2	10 26	6 40	6 31	5 2	10 26	6 40	2	5	7
21 Sat.	14 19	2 5	11 7	11 7	6 41	6 32	5 2	11 7	6 41	6 32	5 2	11 7	6 41	6 32	5 2	11 7	6 41	2	5	7
22 Sun.	14 4	3 5	12 20	12 20	6 42	6 33	5 1	12 20	6 42	6 33	5 1	12 20	6 42	6 33	5 1	12 20	6 42	3	5	8
23 Mon.	13 48	3 5	12 46	12 46	6 43	6 34	5 1	12 46	6 43	6 34	5 1	12 46	6 43	6 34	5 1	12 46	6 43	3	5	8
24 Tue.	13 32	3 5	1 17	1 17	6 44	6 35	5 1	1 17	6 44	6 35	5 1	1 17	6 44	6 35	5 1	1 17	6 44	3	5	8
25 Wed.	13 14	3 6	1 15	1 15	6 45	6 36	5 1	1 15	6 45	6 36	5 1	1 15	6 45	6 36	5 1	1 15	6 45	3	6	8
26 Thu.	12 56	3 6	2 16	2 16	6 46	6 37	5 1	2 16	6 46	6 37	5 1	2 16	6 46	6 37	5 1	2 16	6 46	3	6	8
27 Fri.	12 38	3 6	3 30	3 30	6 47	6 38	5 1	3 30	6 47	6 38	5 1	3 30	6 47	6 38	5 1	3 30	6 47	3	6	9
28 Sat.	12 18	3 6	4 46	4 46	6 48	6 39	5 0	4 46	6 48	6 39	5 0	4 46	6 48	6 39	5 0	4 46	6 48	3	6	9
29 Sun.	11 58	3 6	5 33	5 33	6 49	6 40	5 0	5 33	6 49	6 40	5 0	5 33	6 49	6 40	5 0	5 33	6 49	3	6	9
30 Mon.	11 37	3 6	6 41	6 41	6 50	6 41	5 0	6 41	6 50	6 41	5 0	6 41	6 50	6 41	5 0	6 41	6 50	3	6	9

DECEMBER 1959

Dec.	LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				a-factor, moonset				
	Sun fast	Sun- rise	Moon- set	Moon- rise	Sun- rise	Moon- set	Moon- rise	Sun- set	Moon- set	Moon- rise	Sun- set	Moon- set	Moon- rise	Moon's upper transit	90° 105° 120°						
															m	m	m	m	m	m	m
1 Tue.	m s	6 38	5 0	7 47	6 44	6 49	4 49	7 57	6 34	7 2	4 36	8 9	6 23	7 17	4 20	8 22	6 10	1 15	3	5	8
2 Wed.	11 15	6 39	5 0	8 48	7 48	6 50	4 49	8 57	7 39	7 3	4 36	9 9	7 28	7 18	4 20	9 22	7 15	2 17	3	6	8
3 Thu.	10 30	6 40	5 0	9 43	8 52	6 51	4 49	9 51	8 44	7 4	4 36	10 2	8 35	7 19	4 20	10 13	8 23	3 16	3	5	8
4 Fri.	10 6	6 40	5 0	10 32	9 55	6 51	4 48	10 40	9 48	7 5	4 35	10 48	9 41	7 21	4 19	10 57	9 32	4 12	3	5	8
5 Sat.	9 42	6 41	5 0	11 17	10 55	6 52	4 48	11 22	10 51	7 6	4 35	11 28	10 46	7 22	4 19	11 35	10 40	5 4	3	5	8
6 Sun.	9 17	6 42	5 0	11 57	11 54	6 53	4 48	11 59	11 51	7 7	4 35	12 4	11 49	7 23	4 19	12 7	11 45	5 53	3	5	8
7 Mon.	8 52	6 43	5 0	12 33	.....	6 54	4 48	12 35	.....	7 8	4 35	12 36	.....	7 24	4 19	12 38	.....	6 39	2	5	7
8 Tue.	8 26	6 43	5 0	1 9	0 49	6 55	4 48	1 9	0 49	7 9	4 35	1 7	0 49	7 25	4 19	1 7	0 49	7 24	2	5	7
9 Wed.	8 0	6 44	5 1	1 44	1 44	6 55	4 49	1 42	1 46	7 9	4 35	1 38	1 48	7 25	4 18	1 35	1 50	8 8	2	5	7
10 Thu.	7 33	6 44	5 1	2 20	2 37	6 56	4 49	2 15	2 41	7 10	4 35	2 10	2 46	7 26	4 18	2 3	2 50	8 53	2	5	7
11 Fri.	7 6	6 45	5 1	2 57	3 30	6 57	4 49	2 50	3 35	7 11	4 35	2 43	3 42	7 27	4 18	2 35	3 49	9 37	2	5	7
12 Sat.	6 39	6 46	5 1	3 35	4 22	6 58	4 49	3 27	4 29	7 12	4 35	3 19	4 37	7 28	4 18	3 8	4 47	10 23	2	5	7
13 Sun.	6 11	6 47	5 1	4 16	5 14	6 59	4 49	4 7	5 22	7 13	4 35	3 58	5 32	7 29	4 18	3 45	5 43	11 9	2	4	7
14 Mon.	5 43	6 47	5 2	5 0	6 4	6 59	4 50	4 51	6 13	7 13	4 36	4 39	6 24	7 30	4 19	4 26	6 37	11 56	2	4	6
15 Tue.	5 14	6 48	5 2	5 47	6 53	7 0	4 50	5 37	7 3	7 14	4 36	5 25	7 14	7 31	4 19	5 12	7 28	.....	2	4	6
16 Wed.	4 45	6 49	5 2	6 36	7 40	7 1	4 50	6 27	7 50	7 15	4 36	6 15	8 1	7 32	4 19	6 2	8 14	0 44	2	4	5
17 Thu.	4 16	6 49	5 2	7 27	8 25	7 2	4 50	7 18	8 35	7 16	4 36	7 8	8 45	7 33	4 19	6 57	8 57	1 31	2	3	5
18 Fri.	3 47	6 50	5 3	8 20	9 8	7 2	4 51	8 12	9 16	7 16	4 37	8 4	9 25	7 33	4 20	7 53	9 35	2 19	2	3	5
19 Sat.	3 18	6 50	5 3	9 13	9 48	7 3	4 51	9 8	9 55	7 17	4 37	9 1	10 2	7 34	4 20	8 54	10 11	2 6	1	3	4
20 Sun.	2 48	6 51	5 4	10 9	10 27	7 3	4 52	10 5	10 31	7 17	4 38	10 0	10 37	7 34	4 21	9 55	10 43	3 52	1	3	4
21 Mon.	2 18	6 51	5 4	11 5	11 4	7 4	4 52	11 3	11 7	7 18	4 38	11 1	11 11	7 35	4 21	10 59	11 14	4 39	1	3	4
22 Tue.	1 48	6 52	5 5	.....	11 41	7 4	4 53	.....	11 42	7 18	4 38	.....	11 43	7 35	4 22	.....	11 44	5 26	1	3	4
23 Wed.	1 18	6 52	5 5	0 3	12 19	7 5	4 53	0 4	12 18	7 19	4 39	0 4	12 16	7 36	4 22	0 4	12 15	6 14	1	3	4
24 Thu.	0 49	6 53	5 6	1 3	1 0	7 5	4 54	1 5	12 56	7 19	4 39	1 9	12 52	7 36	4 23	1 12	12 47	7 3	2	3	5
25 Fri.	0 19	6 53	5 6	2 5	1 43	7 6	4 54	2 10	1 37	7 20	4 40	2 15	1 31	7 37	4 23	2 22	1 22	7 56	2	3	5
26 Sat.	SLOW																				
27 Sun.	0 11	6 54	5 7	3 10	2 30	7 6	4 55	3 17	2 21	7 20	4 40	3 25	2 13	7 37	4 24	3 34	2 3	8 52	2	4	6
28 Mon.	0 41	6 54	5 8	4 16	3 23	7 6	4 56	4 25	3 14	7 20	4 41	4 35	3 2	7 37	4 25	4 46	2 50	9 51	2	5	7
29 Tue.	1 11	6 54	5 8	5 23	4 22	7 7	4 56	5 32	4 12	7 21	4 42	5 44	4 0	7 37	4 25	5 57	3 47	10 52	3	5	8
30 Wed.	1 40	6 55	5 9	6 27	5 25	7 7	4 57	6 36	5 15	7 21	4 42	6 47	5 3	7 38	4 26	7 2	4 50	11 55	3	6	8
31 Thu.	2 10	6 55	5 9	7 26	6 30	7 8	4 57	7 35	6 21	7 22	4 43	7 47	6 10	7 38	4 26	8 0	5 59	12 57	3	6	9
	2 39	6 55	5 10	8 20	7 35	7 8	4 58	8 28	7 28	7 22	4 44	8 38	7 19	7 38	4 27	8 48	7 10	1 56	3	6	9

Longitude and Latitude of Foreign Cities and Time Corresponding to 12:00 Noon, E.S.T.

City	Long.	Lat.	Time	City	Long.	Lat.	Time
	° ' "	° ' "			° ' "	° ' "	
Aberdeen, Scotland.....	2 9 w	57 9 n	5:00 p.m.	Lima, Peru.....	77 2 w	12 0 s	12:00 noon
Adelaide, Australia.....	138 36 e	34 55 s	2:30 a.m.*	Lisbon, Portugal.....	9 9 w	38 44 n	5:00 p.m.
Algiers, Algeria.....	3 0 e	36 50 n	5:00 p.m.	Liverpool, England.....	3 0 w	53 25 n	5:00 p.m.
Amsterdam, Netherlands.....	4 53 e	52 22 n	5:00 p.m.	London, England.....	0 5 w	51 32 n	5:00 p.m.
Ankara, Turkey.....	32 55 e	39 55 n	7:00 p.m.	Lyon, France.....	4 50 e	45 45 n	5:00 p.m.
Asunción, Paraguay.....	57 40 w	25 15 s	1:00 p.m.	Madrid, Spain.....	3 42 w	40 26 n	5:00 p.m.
Athens, Greece.....	23 43 e	37 58 n	7:00 p.m.	Makassar, Celebes.....	119 30 e	5 9 s	1:00 a.m.*
Auckland, New Zealand.....	174 45 e	36 52 s	5:00 a.m.*	Manchester, England.....	2 15 w	53 30 n	5:00 p.m.
Bangkok, Thailand.....	100 30 e	13 45 n	0:00 a.m.*	Manila, Philippines.....	120 57 e	14 35 n	1:00 a.m.*
Barcelona, Spain.....	2 9 e	41 23 n	5:00 p.m.	Marseille, France.....	5 20 e	43 20 n	5:00 p.m.
Belém, Brazil.....	48 29 w	1 28 s	2:00 p.m.	Mazatlán, Mexico.....	106 25 w	23 12 n	11:00 a.m.
Belfast, Northern Ireland.....	5 56 w	54 37 n	5:00 p.m.	Mecca, Saudi Arabia.....	39 45 e	21 29 n	8:00 p.m.
Belgrade, Yugoslavia.....	20 32 e	44 52 n	6:00 p.m.	Melbourne, Australia.....	144 58 e	37 47 s	3:00 a.m.*
Berlin, Germany.....	13 25 e	52 30 n	6:00 p.m.	Mexico City, Mexico.....	99 7 w	19 26 n	11:00 a.m.
Birmingham, England.....	1 55 w	52 25 n	5:00 p.m.	Milan, Italy.....	9 10 e	45 27 n	6:00 p.m.
Bogotá, Colombia.....	74 15 w	4 32 n	12:00 noon	Montevideo, Uruguay.....	56 10 w	34 53 s	1:30 p.m.
Bombay, India.....	72 48 e	19 0 n	10:30 p.m.	Moscow, U.S.S.R.....	37 36 e	55 45 n	7:00 p.m.
Bordeaux, France.....	0 31 w	44 50 n	5:00 p.m.	Munich, Germany.....	11 35 e	48 8 n	6:00 p.m.
Bremen, Germany.....	8 49 e	53 5 n	6:00 p.m.	Nagasaki, Japan.....	129 57 e	32 48 n	2:00 a.m.*
Brisbane, Australia.....	153 8 e	27 29 s	3:00 a.m.*	Nagoya, Japan.....	136 56 e	35 7 n	2:00 a.m.
Bristol, England.....	2 35 w	51 28 n	5:00 p.m.	Nairobi, Kenya.....	36 55 e	1 25 n	8:00 p.m.
Brussels, Belgium.....	4 22 e	50 52 n	5:00 p.m.	Nanking, China.....	118 53 e	32 3 n	1:00 a.m.*
Bucharest, Rumania.....	26 7 e	44 25 n	7:00 p.m.	Naples, Italy.....	14 15 e	40 50 n	6:00 p.m.
Budapest, Hungary.....	19 5 e	47 30 n	6:00 p.m.	Newcastle-on-Tyne, Eng.....	1 37 w	54 58 n	5:00 p.m.
Buenos Aires, Argentina.....	58 22 w	34 35 s	1:00 p.m.	Odessa, U.S.S.R.....	30 48 e	46 27 n	7:00 p.m.
Cairo, Egypt.....	31 21 e	30 2 n	7:00 p.m.	Osaka, Japan.....	135 30 e	34 32 n	2:00 a.m.*
Calcutta, India.....	88 24 e	22 34 n	10:30 p.m.	Mexico City, Mexico.....	99 7 w	19 26 n	11:00 a.m.
Canton, China.....	113 15 e	23 7 n	1:00 a.m.*	Oslo, Norway.....	10 42 e	59 57 n	6:00 p.m.
Capetown, U. of S. Af.....	18 22 e	33 55 s	7:00 p.m.	Panamá City, Panamá.....	79 32 w	8 58 n	12:00 noon
Caracas, Venezuela.....	67 2 w	10 28 n	12:30 p.m.	Paramaribo, Surinam.....	55 15 w	5 45 n	1:30 p.m.
Cayenne, French Guiana.....	52 18 w	4 49 n	1:30 p.m.	Paris, France.....	2 20 e	48 48 n	5:00 p.m.
Chihuahua, Mexico.....	106 5 w	28 37 n	11:00 a.m.	Peiping, China.....	116 25 e	39 55 n	1:00 a.m.*
Chungking, China.....	106 34 e	29 46 n	0:00 a.m.*	Perth, Australia.....	115 52 e	31 57 s	1:00 a.m.*
Copenhagen, Denmark.....	12 34 e	55 40 n	6:00 p.m.	Plymouth, England.....	4 5 w	50 25 n	5:00 p.m.
Córdoba, Argentina.....	64 10 w	31 28 s	1:00 p.m.	Port Moresby, Papua Ter.....	147 8 e	9 25 s	3:00 a.m.*
Dakar, French West Africa.....	17 28 w	14 40 n	4:00 p.m.	Prague, Czechoslovakia.....	14 26 e	50 5 n	6:00 p.m.
Darwin, Australia.....	130 51 e	12 28 s	2:30 a.m.*	Rangoon, Burma.....	96 0 e	16 50 n	11:30 p.m.
Dublin, Ireland.....	6 15 w	53 20 n	5:00 p.m.	Reykjavik, Iceland.....	21 58 w	64 4 n	4:00 p.m.
Durban, U. of S. Af.....	30 53 e	29 53 s	7:00 p.m.	Rio de Janeiro, Brazil.....	43 12 w	22 57 s	2:00 p.m.
Edinburgh, Scotland.....	3 10 w	55 5 n	5:00 p.m.	Rome, Italy.....	12 27 e	41 54 n	6:00 p.m.
Frankfurt, Germany.....	8 41 e	50 7 n	6:00 p.m.	San Juan, Puerto Rico.....	66 10 w	18 30 n	1:00 p.m.
Georgetown, British Guiana.....	58 15 w	6 45 n	1:30 p.m.	Santiago, Chile.....	70 45 w	33 28 s	1:00 p.m.
Glasgow, Scotland.....	4 15 w	55 50 n	5:00 p.m.	São Paulo, Brazil.....	46 31 w	23 31 s	2:00 p.m.
Guatemala City, Guatemala.....	90 31 w	14 37 n	11:00 a.m.	São Salvador, Brazil.....	38 27 w	12 56 s	2:00 p.m.
Guayaquil, Ecuador.....	79 56 w	2 10 s	12:00 noon	Shanghai, China.....	121 28 e	31 10 n	1:00 a.m.*
Hamburg, Germany.....	10 2 e	53 33 n	6:00 p.m.	Singapore, British Malaya.....	103 55 e	1 14 n	0:30 a.m.*
Hammerfest, Norway.....	23 38 e	70 38 n	6:00 p.m.	Sofia, Bulgaria.....	23 20 e	42 40 n	7:00 p.m.
Havana, Cuba.....	82 23 w	23 8 n	12:00 noon	Stockholm, Sweden.....	18 3 e	59 17 n	6:00 p.m.
Helsinki, Finland.....	25 0 e	60 10 n	7:00 p.m.	Sydney, Australia.....	151 0 e	34 0 s	3:00 a.m.*
Hobart, Tasmania.....	147 19 e	42 52 s	3:00 a.m.*	Tananarive, Madagascar.....	47 33 e	18 50 s	8:00 p.m.
Iquique, Chile.....	70 7 w	20 10 s	1:00 p.m.	Teheran, Iran.....	51 45 e	35 45 n	8:30 p.m.
Irkutsk, U.S.S.R.....	104 20 e	52 30 n	0:00 a.m.*	Tokyo, Japan.....	139 45 e	35 40 n	2:00 a.m.*
Jakarta, Java.....	106 48 e	6 16 s	1:00 a.m.*	Tripoli, Libya.....	13 12 e	32 57 n	6:00 p.m.
Jibuti, French Somaliland.....	43 3 e	11 30 s	8:00 p.m.	Venice, Italy.....	12 20 e	45 26 n	6:00 p.m.
Johannesburg, U. of S. Af.....	28 4 e	26 12 s	7:00 p.m.	Veracruz, Mexico.....	96 10 w	19 10 n	11:00 a.m.
Kingston, Jamaica.....	76 49 w	17 59 n	12:00 noon	Vienna, Austria.....	16 20 e	48 14 n	6:00 p.m.
La Paz, Bolivia.....	68 22 w	16 27 s	1:00 p.m.	Vladivostok, U.S.S.R.....	132 0 e	43 10 n	2:00 a.m.
Leeds, England.....	1 30 w	53 45 n	5:00 p.m.	Warsaw, Poland.....	21 0 e	52 14 n	6:00 p.m.
Leningrad, U.S.S.R.....	30 18 e	59 56 n	7:00 p.m.	Wellington, New Zealand.....	174 47 e	41 17 s	5:00 a.m.
Leopoldville, Belgian Congo.....	15 17 e	4 18 s	6:00 p.m.	Zürich, Switzerland.....	8 31 e	47 21 n	6:00 p.m.

* On the following day.

Longitude, Latitude, Time and Magnetic Declination of U. S. and Canadian Cities

The last column shows the magnetic declination or angle which the magnetic meridian makes with the true (geographic) meridian. The value being marked w or e, the north end of the compass needle points west or east respectively of true north by that number of degrees.

City	Long. w.	Lat. n.	Time*	Dec.	City	Long. w.	Lat. n.	Time*	Dec.
Albany, N. Y.	73 45	42 40	12:00 noon	13 w	Memphis, Tenn.	90 3	35 9	11:00 a.m.	6 e
Amarillo, Tex.	101 50	35 11	11:00 a.m.	12 e	Miami, Fla.	80 12	25 46	12:00 noon	1 e
Anchorage, Alaska	149 54	61 13	7:00 a.m.	—	Minneapolis, Minn.	87 55	43 2	11:00 a.m.	2 e
Atlanta, Ga.	84 23	33 45	12:00 noon	2 e	Mobile, Ala.	88 3	30 42	11:00 a.m.	7 e
Atlantic City, N. J.	74 25	39 22	12:00 noon	10 w	Montgomery, Ala.	86 18	32 21	11:00 a.m.	3 e
Austin, Nev.	117 4	39 29	9:00 a.m.	18 e	Montpelier, Vt.	72 32	44 15	12:00 noon	16 w
Baker, Oreg.	117 50	44 47	9:00 a.m.	21 e	Montreal, Que.	73 35	45 30	12:00 noon	16 w
Baltimore, Md.	76 38	39 18	12:00 noon	8 w	Moose Jaw, Sask.	105 31	50 37	10:00 a.m.	18 e
Bangor, Maine.	68 47	44 48	12:00 noon	19 w	Nashville, Tenn.	86 47	36 10	11:00 a.m.	3 e
Birmingham, Ala.	86 50	33 30	11:00 a.m.	3 e	Needles, Calif.	114 36	34 50	9:00 a.m.	15 e
Bismarck, N. Dak.	100 47	46 48	11:00 a.m.	14 e	Nelson, B. C.	117 17	49 30	9:00 a.m.	23 e
Boise, Idaho.	116 13	43 36	10:00 a.m.	19 e	New Haven, Conn.	72 55	41 19	12:00 noon	12 w
Boston, Mass.	71 5	42 21	12:00 noon	15 w	New Orleans, La.	90 4	29 57	11:00 a.m.	6 e
Buffalo, N. Y.	78 50	42 55	12:00 noon	7 w	New York, N. Y.	73 58	40 47	12:00 noon	12 w
Calgary, Alta.	114 1	51 1	10:00 a.m.	23 e	Nogales, Ariz.	110 56	31 21	10:00 a.m.	14 e
Carlsbad, N. Mex.	104 15	32 26	10:00 a.m.	13 e	Nome, Alaska	165 30	64 25	6:00 a.m.	19 e
Charleston, S. C.	79 56	32 47	12:00 noon	2 w	North Platte, Nebr.	100 46	41 8	11:00 a.m.	12 e
Charleston, W. Va.	81 38	38 21	12:00 noon	2 w	Oklahoma City, Okla.	97 28	35 26	11:00 a.m.	10 e
Charlotte, N. C.	80 50	35 14	12:00 noon	2 w	Ottawa, Ont.	75 43	45 24	12:00 noon	14 w
Cheyenne, Wyo.	104 52	41 9	10:00 a.m.	15 e	Philadelphia, Pa.	75 10	39 57	12:00 noon	10 w
Chicago, Ill.	87 37	41 50	11:00 a.m.	2 e	Phoenix, Ariz.	112 4	33 29	10:00 a.m.	15 e
Cincinnati, Ohio.	84 30	39 8	12:00 noon	1 e	Pierre, S. Dak.	100 21	44 22	11:00 a.m.	12 e
Cleveland, Ohio.	81 37	41 28	12:00 noon	5 w	Pittsburgh, Pa.	79 57	40 27	12:00 noon	5 w
Columbia, S. C.	81 2	34 0	12:00 noon	1 w	Port Arthur, Ont.	89 17	48 30	12:00 noon	1 e
Columbus, Ohio.	83 1	40 0	12:00 noon	2 w	Portland, Maine.	70 15	43 40	12:00 noon	17 w
Dallas, Tex.	96 46	32 46	11:00 a.m.	9 e	Portland, Oreg.	122 41	45 31	9:00 a.m.	23 e
Denver, Colo.	105 0	39 45	10:00 a.m.	14 e	Providence, R. I.	71 24	41 50	12:00 noon	15 w
Des Moines, Iowa.	93 37	41 35	11:00 a.m.	7 e	Quebec, Que.	71 11	46 49	12:00 noon	20 w
Detroit, Mich.	83 3	42 20	12:00 noon	3 w	Raleigh, N. C.	78 39	35 46	12:00 noon	4 w
Dubuque, Iowa.	90 40	42 31	11:00 a.m.	5 e	Reno, Nev.	119 49	39 30	9:00 a.m.	18 e
Duluth, Minn.	92 5	46 49	11:00 a.m.	7 e	Richfield, Utah.	112 5	38 46	10:00 a.m.	17 e
Eastport, Maine.	67 0	44 54	12:00 noon	21 w	Richmond, Va.	77 29	37 33	12:00 noon	6 w
El Centro, Calif.	115 33	32 38	9:00 a.m.	15 e	Roanoke, Va.	79 57	37 17	12:00 noon	3 w
El Paso, Tex.	106 29	31 46	11:00 a.m.	13 e	Sacramento, Calif.	121 30	38 35	9:00 a.m.	17 e
Eugene, Oreg.	123 5	44 3	9:00 a.m.	22 e	St. John, N. B.	66 10	45 18	1:00 p.m.	22 w
Fargo, N. Dak.	96 48	46 52	11:00 a.m.	10 e	St. Louis, Mo.	90 12	38 35	11:00 a.m.	5 e
Flagstaff, Ariz.	111 41	35 13	10:00 a.m.	15 e	Salmon, Idaho.	113 54	45 11	10:00 a.m.	20 e
Fresno, Calif.	119 48	36 44	9:00 a.m.	17 e	Salt Lake City, Utah.	111 54	40 46	10:00 a.m.	17 e
Garden City, Kans.	100 53	37 58	10:00 a.m.	13 e	San Antonio, Tex.	98 33	29 23	11:00 a.m.	10 e
Grand Junction, Colo.	108 33	39 5	10:00 a.m.	15 e	San Diego, Calif.	117 10	32 42	9:00 a.m.	15 e
Grand Rapids, Mich.	85 40	42 58	11:00 a.m.	1 e	San Francisco, Calif.	122 26	37 47	9:00 a.m.	18 e
Havre, Mont.	109 43	48 33	10:00 a.m.	20 e	Santa Fe, N. Mex.	105 57	35 41	10:00 a.m.	13 e
Helena, Mont.	112 2	46 35	10:00 a.m.	19 e	Sault Ste. Marie, Mich.	84 21	46 30	11:00 a.m.	4 w
Honolulu, Hawaii	157 50	21 18	7:00 a.m.	—	Savannah, Ga.	81 5	32 5	12:00 noon	0
Hoquiam, Wash.	123 54	46 59	9:00 a.m.	23 e	Scranton, Pa.	75 39	41 24	12:00 noon	10 w
Hot Springs, Ark.	93 3	34 31	11:00 a.m.	8 e	Seattle, Wash.	122 20	47 37	9:00 a.m.	23 e
Idaho Falls, Idaho.	112 1	43 30	10:00 a.m.	18 e	Shreveport, La.	93 42	32 28	11:00 a.m.	8 e
Indianapolis, Ind.	86 10	39 46	11:00 a.m.	1 e	Silver City, N. Mex.	108 18	32 46	10:00 a.m.	14 e
Jackson, Miss.	90 12	32 20	11:00 a.m.	7 e	Sioux Falls, S. Dak.	96 44	43 33	11:00 a.m.	11 e
Jacksonville, Fla.	81 40	30 22	12:00 noon	1 e	Sitka, Alaska	135 15	57 10	9:00 a.m.	30 e
Juneau, Alaska	134 24	58 18	9:00 a.m.	—	Spokane, Wash.	117 26	47 40	9:00 a.m.	23 e
Kansas City, Mo.	94 35	39 6	11:00 a.m.	9 e	Springfield, Ill.	89 38	39 48	11:00 a.m.	4 e
Key West, Fla.	81 48	24 33	12:00 noon	3 e	Springfield, Mass.	72 34	42 6	12:00 noon	14 w
Kingston, Ont.	76 30	44 15	12:00 noon	12 w	Springfield, Mo.	93 17	37 13	11:00 a.m.	7 e
Klamath Falls, Oreg.	121 44	42 10	9:00 a.m.	19 e	Syracuse, N. Y.	76 8	43 2	12:00 noon	11 w
Knoxville, Tenn.	83 56	35 57	11:00 a.m.	0	Tampa, Fla.	82 27	27 57	12:00 noon	2 e
Lander, Wyo.	108 40	42 50	10:00 a.m.	17 e	Toronto, Ont.	79 24	43 40	12:00 noon	8 w
Las Vegas, Nev.	115 12	36 10	9:00 a.m.	16 e	Trinidad, Colo.	104 30	37 10	10:00 a.m.	14 e
Lewiston, Idaho.	117 2	46 24	9:00 a.m.	21 e	Victoria, B. C.	123 21	48 25	9:00 a.m.	24 e
Lincoln, Nebr.	96 40	40 50	11:00 a.m.	10 e	Watertown, N. Y.	75 55	43 58	12:00 noon	13 w
London, Ont.	81 34	43 2	12:00 noon	5 w	Wichita, Kans.	97 17	37 43	11:00 a.m.	10 e
Los Angeles, Calif.	118 15	34 3	9:00 a.m.	16 e	Wilmington, N. C.	77 57	34 14	12:00 noon	3 w
Louisville, Ky.	85 46	38 15	11:00 a.m.	1 e	Winnipeg, Man.	97 7	49 54	11:00 a.m.	11 e
Manchester, N. H.	71 30	43 0	12:00 noon	16 w					

* Corresponding to 12:00 noon, E.S.T.

1958 JANUARY													FEBRUARY													MARCH													APRIL												
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Perpetual Calendar 1800-2000 A.D.

Day of the month	Jan. Oct.	Apr. Jul. Jan.	Sept. Dec.	Jun.	Feb. Mar. Nov.	Aug. Feb.	May	
1 8 15 22 29.....	A	B	C	D	E	F	G	Mon.
2 9 16 23 30.....	G	A	B	C	D	E	F	Tue.
3 10 17 24 31.....	F	G	A	B	C	D	E	Wed.
4 11 18 25.....	E	F	G	A	B	C	D	Thur.
5 12 19 26.....	D	E	F	G	A	B	C	Fri.
6 13 20 27.....	C	D	E	F	G	A	B	Sat.
7 14 21 28.....	B	C	D	E	F	G	A	Sun.
.....	.....	.....	1800	1801	1802	1803	.....
1804	1805	1806	1807	.....	1808	1809	.....
1810	1811	.....	1812	1813	1814	1815	.....
.....	1816	1817	1818	1819	.....	1820	.....
EXAMPLES	1821	1822	.....	1824	1825	1826	.....
1827	.....	1828	1829	1830	1831	.....	.....
(1) Given Nov. 20, 1891, to find the day of the week. Under Nov., opposite 20, is G. In the 1891 column, opposite G is Fri., <i>ans.</i>	1832	1833	1834	1835	.....	1836	1837	
	1838	1839	.....	1840	1841	1842	1843	
	.....	1844	1845	1846	1847	.....	1848	
	1849	1850	1851	.....	1852	1853	1854	
(2) Given Fri., Oct. —, 1868, to find the possible days of the month. In the 1868 column, opposite Fri. is G. Under Oct., G gives 2, 9, 16, 23, 30, <i>ans.</i> , the Fridays of Oct., 1868.	1855	.....	1856	1857	1858	1859	.....
	1860	1861	1862	1863	.....	1864	1865	
	1866	1867	.....	1868	1869	1870	1871	
	1877	1878	1879	.....	1880	1881	1882	
(3) Given Mon., — 5, 1811, to find the possible months. In the 1811 column, opposite Mon. is B. Opposite 5, B gives Aug., the only common-year month available, <i>ans.</i>	1883	.....	1884	1885	1886	1887	.....
	1888	1889	1890	1891	.....	1892	1893	
	1894	1895	.....	1896	1897	1898	1899	
	1900	1901	1902	1903	.....	1904	1905	
	1906	1907	.....	1908	1909	1910	1911	
(4) Given Sat., Feb. 29, —, to find the possible years. Under Feb., leap-year, opposite 29, is F. Opposite Sat. F gives leap-years 1812, 1840 1868, 1896, etc., <i>ans.</i>	.....	1912	1913	1914	1915	.....	1916	
	1917	1918	1919	.....	1920	1921	1922	
	1923	.....	1924	1925	1926	1927	.....
	1928	1929	1930	1931	.....	1932	1933	
	1934	1935	.....	1936	1937	1938	1939	
	.....	1940	1941	1942	1943	.....	1944	
	1945	1946	1947	.....	1948	1949	1950	
	1951	.....	1952	1953	1954	1955	.....
	1956	1957	1958	1959	.....	1960	1961	
	1962	1963	.....	1964	1965	1966	1967	
	.....	1968	1969	1970	1971	.....	1972	
	1973	1974	1975	.....	1976	1977	1978	
	1979	.....	1980	1981	1982	1983	.....
	1984	1985	1986	1987	.....	1988	1989	
	1990	1991	.....	1992	1993	1994	1995	
	.....	1996	1997	1998	1999	.....	2000	

Morning and Evening Stars and Planets in 1959

MERCURY

Morning star, Jan. 1 to Feb. 14
 Evening star, Feb. 14 to Mar. 29
 Morning star, Mar. 29 to June 3
 Evening star, June 3 to Aug. 5
 Morning star, Aug. 5 to Sept. 17
 Evening star, Sept. 17 to Nov. 24
 Morning star, Nov. 24 to Dec. 31

VENUS

Evening star, Jan. 1 to Sept. 1
 Morning star, Sept. 1 to Dec. 31

MARS

Evening star, Jan. 1 to Oct. 30
 Morning star, Oct. 30 to Dec. 31

JUPITER

Morning star, Jan. 1 to May 18
 Evening star, May 18 to Dec. 5
 Morning star, Dec. 5 to Dec. 31

SATURN

Morning star, Jan. 1 to June 26
 Evening star, June 26 to Dec. 31

Mercury may be seen over the western horizon after sunset for about 10 days before and after eastern elongations of the sun, and similarly over the eastern horizon before sunrise around western elongation times. Eastern elongations occur Mar. 12 (Mercury in southern Pisces), July 8 (in Cancer, west of the sickle of Leo), and Nov. 3 (in Scorpius, west of Antares); western elongations occur Apr. 26 (northwestern Cetus), Aug. 23 (in Cancer, southeast of the Beehive star cluster), and Dec. 12 (in Libra, northwest of Antares). On Aug. 28 Mercury is very close to and just south of Uranus.

Venus is evening star for the first 8 months and as such is observable in the west after sunset. Beginning in Sagittarius in Jan., a few degrees east of the sun, it extends farther and farther from the sun until greatest elongation east on June 23 (in Leo, west of Regulus). Greatest brilliancy occurs July 26. On Sept. 1 it becomes morning star and is seen afterward in the east before sunrise. Greatest brilliancy occurs again Oct. 8 in Leo, a few degrees southeast of Regulus; it will be found then rising earlier and earlier before the sun. On Aug. 10 Venus and Mars are in conjunction, Venus being south of Mars.

Mars is evening star for the first 10 months, setting after the sun. From Jan. 1 to early Apr. it is in Aries and Taurus, being north of Aldebaran on Mar. 4. From

Apr. to late Aug. it is in Gemini, Cancer, and Leo, being north of Regulus on July 19. In Sept. and Oct. it is in Virgo, passing north of Spica on Oct. 10. Beginning Oct. 30 it becomes morning star, rising before the sun. By mid-Dec. it is at the Scorpius-Ophiuchus border, north of Antares. On June 14, Venus and Mars are in conjunction, Venus being north of Mars.

Jupiter, as morning star for the first 4 months or more, is found in Libra. It is brightest in the latter part of May. From June to Dec. it is in the evening sky after sunset, going north of Antares in mid-Nov. On Nov. 7, Mercury is in conjunction with Jupiter and south of the latter.

Saturn, until late June, is morning star in Sagittarius, northwest of the dipper; it is in about the same position for the whole year, its color being a dull, greenish yellow.

Uranus is near the Cancer-Leo boundary during the year, between the Beehive star cluster and Regulus. It can be observed, when the sun is not too near, with low-power optical aid. On June 19 Venus passes north of Uranus in conjunction, and on June 23 Mars passes just north of Uranus. *Neptune* is at the Virgo-Libra border all the year, and visible in a small telescope. On Dec. 14, Venus is in conjunction with and just north of Neptune. *Pluto* is in Leo in 1959, a few degrees east of Gamma Leonis, but is observable only in a large telescope.

Phases of the Moon for 1959

	E. S. T.	C. S. T.	M. S. T.	P. S. T.
	d h m	d h m	d h m	d h m
Last Quarter JANUARY.....	2 5 50 am	2 4 50 am	2 3 50 am	2 2 50 am
New Moon.....	9 0 34 am	8 11 34 pm	8 10 34 pm	8 9 34 pm
First Quarter.....	16 4 26 pm	16 3 26 pm	16 2 26 pm	16 1 26 pm
Full Moon.....	24 2 32 pm	24 1 32 pm	24 12 32 pm	24 11 32 am
Last Quarter.....	31 2 6 pm	31 1 6 pm	31 12 6 pm	31 11 6 am
New Moon FEBRUARY.....	7 2 22 pm	7 1 22 pm	7 12 22 pm	7 11 22 am
First Quarter.....	15 2 20 pm	15 1 20 pm	15 12 20 pm	15 11 20 am
Full Moon.....	23 3 54 am	23 2 54 am	23 1 54 am	23 0 54 am
Last Quarter MARCH.....	1 9 54 pm	1 8 54 pm	1 7 54 pm	1 6 54 pm
New Moon.....	9 5 51 am	9 4 51 am	9 3 51 am	9 2 51 am
First Quarter.....	17 10 10 am	17 9 10 am	17 8 10 am	17 7 10 am
Full Moon.....	24 3 2 pm	24 2 2 pm	24 1 2 pm	24 12 2 pm
Last Quarter.....	31 6 6 am	31 5 6 am	31 4 6 am	31 3 6 am
New Moon APRIL.....	7 10 29 pm	7 9 29 pm	7 8 29 pm	7 7 29 pm
First Quarter.....	16 2 32 am	16 1 32 am	16 0 32 am	15 11 32 pm
Full Moon.....	23 0 13 am	22 11 13 pm	22 10 13 pm	22 9 13 pm
Last Quarter.....	29 3 38 pm	29 2 38 pm	29 1 38 pm	29 12 38 pm
New Moon MAY.....	7 3 11 pm	7 2 11 pm	7 1 11 pm	7 12 11 pm
First Quarter.....	15 3 9 pm	15 2 9 pm	15 1 9 pm	15 12 9 pm
Full Moon.....	22 7 56 am	22 6 56 am	22 5 56 am	22 4 56 am
Last Quarter.....	29 3 13 am	29 2 13 am	29 1 13 am	29 0 13 am
New Moon JUNE.....	6 6 53 am	6 5 53 am	6 4 53 am	6 3 53 am
First Quarter.....	14 0 22 am	13 11 22 pm	13 10 22 pm	13 9 22 pm
Full Moon.....	20 3 0 pm	20 2 0 pm	20 1 0 pm	20 12 0 am
Last Quarter.....	27 5 12 pm	27 4 12 pm	27 3 12 pm	27 2 12 pm

Phases of the Moon for 1959 (Contd.)

	E. S. T.			C. S. T.			M. S. T.			P. S. T.		
	d	h	m	d	h	m	d	h	m	d	h	m
New Moon JULY.....	5	9	0 pm	5	8	0 pm	5	7	0 pm	5	6	0 pm
First Quarter.....	13	7	1 am	13	6	1 am	13	5	1 am	13	4	1 am
Full Moon.....	19	10	33 pm	19	9	33 pm	19	8	33 pm	19	7	33 pm
Last Quarter.....	27	9	22 am	27	8	22 am	27	7	22 am	27	6	22 am
New Moon AUGUST.....	4	9	34 am	4	8	34 am	4	7	34 am	4	6	34 am
First Quarter.....	11	12	10 pm	11	11	10 pm	11	10	10 am	11	9	10 am
Full Moon.....	18	7	50 am	18	6	50 am	18	5	50 am	18	4	50 am
Last Quarter.....	26	3	3 am	26	2	3 am	26	1	3 am	26	0	3 am
New Moon SEPTEMBER.....	2	8	55 pm	2	7	55 pm	2	6	55 pm	2	5	55 pm
First Quarter.....	9	5	7 pm	9	4	7 pm	9	3	7 pm	9	2	7 pm
Full Moon.....	16	7	51 pm	16	6	51 pm	16	5	51 pm	16	4	51 pm
Last Quarter.....	24	9	22 pm	24	8	22 pm	24	7	22 pm	24	6	22 pm
New Moon OCTOBER.....	2	7	31 am	2	6	31 am	2	5	31 am	2	4	31 am
First Quarter.....	8	11	22 pm	8	10	22 pm	8	9	22 pm	8	8	22 pm
Full Moon.....	16	10	58 am	16	9	58 am	16	8	58 am	16	7	58 am
Last Quarter.....	24	3	22 pm	24	2	22 pm	24	1	22 pm	24	12	22 pm
New Moon.....	31	5	41 pm	31	4	41 pm	31	3	41 pm	31	2	41 pm
First Quarter NOVEMBER.....	7	8	23 am	7	7	23 am	7	6	23 am	7	5	23 am
Full Moon.....	15	4	42 am	15	3	42 am	15	2	42 am	15	1	42 am
Last Quarter.....	23	8	3 am	23	7	3 am	23	6	3 am	23	5	3 am
New Moon.....	30	3	46 am	30	2	46 am	30	1	46 am	30	0	46 am
First Quarter DECEMBER.....	6	9	11 pm	6	8	11 pm	6	7	11 pm	6	6	11 pm
Full Moon.....	14	11	49 pm	14	10	49 pm	14	9	49 pm	14	8	49 pm
Last Quarter.....	22	10	28 pm	22	9	28 pm	22	8	28 pm	22	7	28 pm
New Moon.....	29	2	9 pm	29	1	9 pm	29	12	9 pm	29	11	9 am

The Sun

There are countless millions of far distant, superheated, self-luminous gaseous bodies called stars and each one is in itself a sun. Our Sun—the star around which our whole solar system revolves—is at a mean distance of 93,003,000 miles from the Earth, has a diameter of 865,390 miles, a surface temperature of about 11,000° F. and an interior temperature estimated at millions of degrees. It has a surface area approximately 12,000 times that of the Earth and in volume or bulk it is about 1,306,000 times the size of the Earth. It is a star of average size and temperature.

The Sun rotates on its axis and, by observation of Sun-spots (great whirling storms in the Sun's atmosphere) and Faculae (bright streaks or areas on the Sun's surface), astronomers have discovered that the rotational speed varies from approximately 24½ days at its equator to approximately 34 days near its poles. The Sun is just one star of the great Milky Way Galaxy that is rotating on its galactic axis at a rate that gives the Sun a galactic traveling speed of 175 miles per second. Furthermore, the Sun is moving toward a point known as "the apex of the Sun's way" in the constellation Hercules at a speed of about 12 miles per second.

What we see when we look at the Sun is the glowing surface called the Photosphere. Extending above this surface is the

Sun's atmosphere consisting of two layers, one extending outward for a few hundred miles from the Sun's surface and called the Reversing Layer for spectroscopic reasons, the other an outer layer extending several thousand miles and called the Chromosphere because of its reddish color due mostly to superheated hydrogen, helium and calcium. Solar "prominences" occasionally burst out from this layer and extend hundreds of thousands of miles above the Sun's surface. Beyond these layers of solar atmosphere and extending to great height is the outermost observable solar feature, the magnificent Corona of exceedingly slight density that provides an awesome spectacle for observers during total eclipses of the Sun.

Comets

In ancient times comets were supposed to be omens of sudden death, war, revolution or other dire events in human affairs and practically nothing was known of their true nature. They still offer puzzling problems to modern astronomers and, with about 1000 listed, new ones are being discovered and charted each year. In general, comets consist of a nucleus (sometimes lacking) surrounded by a head or "coma" (from the Greek word for hair because of its hazy appearance) from which extends the great tail that makes the passage of a comet through our skies such a striking

The Brightest Stars

Star	Constellation	Position, 1950			Mag.	Dist.	On meridian 9 p.m.
		R.A.	Dec.				
		h m °				l.-y.	
Sirius.....	Canis Major.....	6 42.9	-16 39	-1.6	8	Feb. 16	
Canopus.....	Carina.....	6 22.8	-52 40	-0.9	650	Feb. 11	
Alpha Centauri.....	Centaurus.....	14 36.2	-60 38	+0.1	4	June 16	
Vega.....	Lyra.....	18 35.2	+38 44	0.1	23	Aug. 13	
Capella.....	Auriga.....	5 13.0	+45 57	0.2	42	Jan. 24	
Arcturus.....	Boötes.....	14 13.4	+19 27	0.2	32	June 10	
Rigel.....	Orion.....	5 12.1	- 8 15	0.3	545	Jan. 24	
Procyon.....	Canis Minor.....	7 36.7	+ 5 21	0.5	10	Mar. 2	
Achernar.....	Eridanus.....	1 35.9	-57 29	0.6	70	Nov. 30	
Beta Centauri.....	Centaurus.....	14 0.3	-60 8	0.9	130	June 7	
Altair.....	Aquila.....	19 48.3	+ 8 44	0.9	18	Sept. 3	
Betelgeuse.....	Orion.....	5 52.5	+ 7 24	0.9	300	Feb. 3	
Aldebaran.....	Taurus.....	4 33.0	+16 25	1.1	54	Jan. 14	
Spica.....	Virgo.....	13 22.6	-10 54	1.2	190	May 28	
Pollux.....	Gemini.....	7 42.3	+28 9	1.2	31	Mar. 3	
Antares.....	Scorpius.....	16 26.3	-26 19	1.2	170	July 14	
Fomalhaut.....	Piscis Austrinus.....	22 54.9	-29 53	1.3	27	Oct. 20	
Deneb.....	Cygnus.....	20 39.7	+45 6	1.3	465	Sept. 16	
Regulus.....	Leo.....	10 5.7	+12 13	1.3	70	Apr. 9	
Beta Crucis.....	Crux.....	12 44.8	-59 25	1.5	465	May 18	
Eta Carinae.....	Carina.....	10 43.1	-59 25	1-7	...	Apr. 17	
Alpha-one Crucis.....	Crux.....	12 23.8	-62 49	1.6	150	May 13	
Castor.....	Gemini.....	7 31.4	+32 0	1.6	44	Feb. 28	
Gamma Crucis.....	Crux.....	12 28.4	-56 50	1.6	...	May 15	
Epsilon Canis Majoris.....	Canis Major.....	6 56.7	-28 54	1.6	325	Feb. 19	
Epsilon Ursae Majoris.....	Ursa Major.....	12 51.8	+56 14	1.7	50	May 20	
Bellatrix.....	Orion.....	5 22.4	+ 6 18	1.7	215	Jan. 27	
Lambda Scorpii.....	Scorpius.....	17 30.2	-37 4	1.7	205	July 30	
Epsilon Carinae.....	Carina.....	8 21.5	-59 21	1.7	325	Mar. 13	
Mira.....	Cetus.....	2 16.8	- 3 12	2-9	250	Dec. 11	
Epsilon Orionis.....	Orion.....	5 33.7	- 1 14	1.7	405	Jan. 29	
Beta Tauri.....	Taurus.....	5 23.1	+28 34	1.8	115	Jan. 27	
Beta Carinae.....	Carina.....	9 12.7	-69 31	1.8	...	Mar. 26	
Alpha Trianguli Australis.....	Triangulum Australe.....	16 43.4	-68 56	1.9	130	July 18	
Alpha Persei.....	Perseus.....	3 20.7	+49 41	1.9	190	Dec. 27	
Eta Ursae Majoris.....	Ursa Major.....	13 45.6	+49 34	1.9	220	June 3	
Gamma Geminorum.....	Gemini.....	6 34.8	+16 27	1.9	65	Feb. 14	
Epsilon Sagittarii.....	Sagittarius.....	18 20.9	-34 25	1.9	165	Aug. 12	
Alpha Ursae Majoris.....	Ursa Major.....	11 0.7	+62 1	1.9	90	Apr. 22	
Delta Canis Majoris.....	Canis Major.....	7 6.4	-26 19	2.0	410	Feb. 22	

spectacle. Comets come in varying sizes but the average diameter of the heads of a large number of observed comets is about 80,000 miles and the tail length may stretch out to more than 100,000,000 miles. The density of comets is so low, however, that we can see the stars through them and there is more actual material in one cubic inch of ordinary air than in 2000 cubic miles of the tail of a comet.

The luminous tails of comets were believed, for many centuries, to be merely clouds high in our atmosphere. Tycho Brahe, eccentric Danish astronomer, proved that the comet he observed in 1577 was a celestial object far beyond the limit of the Earth's atmosphere. But the great forward step in the study of comets came when Edmund Halley, who became England's Astronomer Royal, carefully observed a comet in 1682, checked with previous observations, calculated its orbit and pre-

dicted its return to our skies in 1758 or 1759. Halley died in 1742 but the comet now named after him, reappeared on schedule and a search through ancient records indicated that it had been observed in repeated appearances as far back as 240 B.C. Its last appearance was marked by its perihelion passage in 1910 and its next visit to our skies will occur in 1986. Halley's fulfilled prediction was the first definite proof that comets have regular orbits and time schedules or are, as the astronomer says, "periodic". The known "periods" (time intervals between appearances) of comets vary from the 3.3 years of Encke's Comet to thousands of years for wider travelers. No known great comets are scheduled for appearance in our sky this year.

A curious thing about comets is that their tails always trail from the head in direction away from the Sun, so that when a comet is moving away from the Sun, the

20 Famous Comets

Year and no.	Name of comet	Period, years
1744	De Chéseaux's Comet.....	.....
1806	Biela's Comet.....	6.7
1811 I	Great Comet of 1811.....	3000
1812	Di Vico's Comet.....	70.7
1815	Olbers' Comet.....	74.0
1819 I	Encke's Comet.....	3.3
1819	Pons-Winnecke Comet.....	6.0
1835 III	Halley's Comet.....	76.3
1843 I	Great Comet of 1843.....	512.4
1844 II	Great Comet of 1844.....	102,050
1858 VI	Donati's Comet.....	2,040 (†)
1864 II	Great Comet of 1864.....	2,800,000
1871 III	Tuttle's Comet.....	13.8
1874 III	Coggia's Comet.....	6,000 (†)
1879	Brorsen's Comet.....	5.6
1881 II	Tebbutt's Comet.....	.....
1889 VI	Swift's 2nd Comet.....	7.0
1892 III	Holmes' Comet.....	6.9
1923	d'Arrest's Comet.....	6.6
1925 II	Comet Schwassmann-Wachmann.....	16.2

tail stretches out in front of the head. A comet's tail is so tenuous as to be almost a vacuum. The Earth passed through the tail of Halley's Comet in May, 1910, and on that occasion astronomers heard nothing, felt nothing and saw nothing to indicate that such passage had any observable effect on the Earth.

The Polar Auroras

It has been definitely established that Sun-spots are the direct cause of the greatest electrical show on Earth, a double feature, the Aurora Borealis (Northern Lights) and the Aurora Australis (Southern Lights). Sun-spots are magnetic storms of vast dimensions on the surface of the Sun and they shoot out electrified particles into space. Those that come toward the Earth are drawn toward the Earth's magnetic poles and consequently these magnetic poles are the radiating centers of those spectacular electromagnetic displays in the sky that we commonly call the "Northern Lights" or the "Southern Lights", depending upon whether we see them in the northern or southern hemisphere. The electrical particles from the Sun-spots strike the upper regions of our atmosphere where the component gases (nitrogen, oxygen and extremely minor amounts of argon, helium, neon, hydrogen and carbon dioxide) are very much rarefied and cause them to vibrate and glow in colors characteristic of the various elements, just as a neon sign glows when an electric charge is passed through it. The Sun-spots that cause auroral displays also cause the magnetic storms that interfere with radio reception, telephone, telegraph and cable traffic and other electromagnetic devices such as compasses and various aviation accessories.

There is an almost infinite variety to the auroral display. The lights may sweep across the sky in waves, in streamers or in folds like draped curtains. Or it may be a stationary glow. Sometimes there is little or no color in these waves, sheets or streamers of light. At other times the lights may be rich in red or green or pastel shades. Rose color and lavender and violet and purple are common. Blue is rare but has been seen. The "Northern Lights" have been seen as far south as New Orleans and the Florida peninsula and the "Southern Lights" have been seen as far north as New Zealand and Australia, but the maximum occurrence of these auroral displays is along the borders of the Arctic and Antarctic regions. Since these are atmospheric displays, our atmosphere must extend to the extreme height at which auroral lights are observed. Prof. Carl Störmer of the University of Oslo found this to be about 600 miles. He further found that no auroral lights came closer to the Earth's surface than 50 or 60 miles.

The Change of Seasons

It is enough to state that the earth is nearer to the sun in January than it is in July to convince those who live in the northern hemisphere that there must be some other explanation than that for the seasonal changes on our globe. The reason for the change in seasons is that the axis of rotation of the earth is inclined to the perpendicular of the plane of its orbit around the sun at an angle of approximately $23\frac{1}{2}^{\circ}$, so there is a proportional shifting of the angle of the sun's rays falling on different portions of the earth's surface at different times of the year.

On or about June 21, the north end of the earth's axis is inclined to its limit toward the sun. In the northern hemisphere this is our summer solstice. We then have our longest daylight period and a maximum of heat and light from the sun, whose perpendicular rays are falling on the Tropic of Cancer, $23\frac{1}{2}^{\circ}$ north of the equator. Six months later, on or about Dec. 22, the earth has reached a position in its orbit that finds the north end of its axis inclined at its maximum away from the sun. This is our winter solstice. We then have our shortest daylight period and a minimum of heat and light from the sun, which is over the Tropic of Capricorn, $23\frac{1}{2}^{\circ}$ south of the equator. Conditions are reversed in the southern hemisphere for obvious reasons. Their winter is our summer; their summer is our winter. Twice a year, at the equinoxes in March and September, the sun is on the equator, the day is of equal length all over the world and each hemisphere receives the same amount of light and heat from the rays of the sun.

If the effect in the change of the angle of the sun's rays on the earth's surface were instantaneous, our coldest period would be at the winter solstice and our warmest period at the summer solstice, but because of the blanket of atmosphere

around the earth and the cumulative effect in the heating or cooling of the earth's surface, we have "the lag of the seasons", which brings our warmest and coldest periods some 5 or 6 weeks after the sun is "farthest north" or "farthest south".

Seasons for the Northern Hemisphere, 1959

Eastern Standard Time

March 21, 3:55 A.M., sun enters sign of Aries; spring begins.
 June 21, 10:50 P.M., sun enters sign of Cancer; summer begins.
 Sept. 23, 2:09 P.M., sun enters sign of Libra; autumn begins.
 Dec. 22, 9:35 A.M., sun enters sign of Capricornus; winter begins.

Planet Table

	Mean distance from sun in millions of miles	Period of revolution around the sun	Eccentricity of orbit	Inclination to ecliptic	Diameter	Period of rotation on axis	Inclination of equator to orbit plane	Surface gravity (earth = 1)	Density H ₂ O = 1	Oblateness	Mean velocity in orbit	Max. stellar mag.
				°	miles		°				mi./sec.	
Sun.....					865,400	24 ^d 64 ^h †	7.2	28	1.4	0	.....	-26.7
Moon.....		(27 ^d 32 ^h 22 ^m)*	0.05	5 8	2,160	27 ^d 32 ^h	6.7	0.16	3.3	0	0.63	-12.6
Mercury....	36.00	87 ^d 9 ^h 56 ^m	0.21	7 0	3,100	88 ^d	7	0.28	3.8	0	30	-1.2
Venus.....	67.27	224 ^d 70 ^m 1	0.01	3 24	7,700	† ‡	†	0.85	5.1	0	22	-4.4
Earth.....	93.00	365 ^d 256 ^m	0.02	0 0	7,927	23 ^h 56 ^m	23.4	1.00	5.5	1/297	18.5	.....
Mars.....	141.71	1 ^y 88 ^d 1	0.09	1 51	4,200	24 ^h 37 ^m	25.2	0.38	4.0	1/192	15	-2.8
Jupiter....	483.88	11 ^y 86 ^d 2	0.05	1 18	88,700	9 ^h 50 ^m †	3.1	2.6	1.3	1/15	8	-2.5
Saturn.....	887.14	29 ^y 458 ^d	0.06	2 29	75,100	10 ^h 14 ^m †	26.8	1.2	0.7	1/9.5	6	-0.4
Uranus.....	1783.98	84 ^y 013 ^d	0.05	0 46	32,000	10 ^h 3 ^h	98	1.1	1.3	1/14	4	+5.7
Neptune....	2795.46	164 ^y 79 ^d	0.01	1 46	27,700	15 ^h 8	29	1.4	2.2	1/40	3	+7.8
Pluto.....	3675.27	248 ^y 430 ^d	0.25	17 9	3,600	??	??	??	?	??	<3	+14

* Period of revolution around the earth. † This is the rotation at the equator. ‡ Rotation of Venus is uncertain but is probably a few weeks. § The equatorial diameters of the earth, Jupiter, and Saturn are given; polar diameters are: earth, 7900.0 mi., Jupiter 82,789 mi., Saturn 67,170 mi.

SATELLITES: The number of known moons in the solar system is now as follows: for the earth 1; Mars 2; Jupiter 12; Saturn 9; Uranus 5; Neptune 2.

OTHER DATA ON THE EARTH: Equatorial circumference, 24,902.4 mi.; total area, 196,949,970 sq. mi.; mass, 6.6 sextillion tons; mean diameter, 7,917.8 mi.

The Moon

Mars has 2 small satellites or moons, Jupiter has 12, Saturn 9, Uranus 5, and Neptune 2; but the earth has one comparatively large satellite, commonly called the moon. It is a globe 2,160 mi. in diameter with a surface deeply pitted by great craters. It has no atmosphere that astronomers can detect and shines only by reflected light of the sun. Though it seems very bright to us at "full moon," it reflects only about 7% of the light from the sun.

The orbit of the moon is elliptical, with the earth at one focus. The distance of the moon from the earth varies from 221,463 mi. (perigee) to 252,710 mi. (apogee), the average being 238,857 mi. The curious thing about the moon is that it revolves around the earth in 27 days, 7 hr., 43 min., 11.47 sec., and rotates on its axis in exactly the same time, which is why we always see the same side of the moon. Because of what are known as "librations in latitude and

longitude" and also a "diurnal libration," we do see "around the edge of the moon" at different times. In this manner a total of 59% of the moon's surface has been observed, but the other 41% never has been seen by the human eye.

Although the moon revolves around the earth in approximately 27½ days, it is, on the average, a matter of 29½ days (29 days, 12 hr., 44 min., 2.78 sec.) from one new moon to the other, because the earth is moving around the sun while the moon is moving around the earth and the "new moon" depends upon the relative positions of the 3 bodies.

If the planes of orbit of the earth and the moon coincided, there would be an eclipse of the moon at every "full moon" and an eclipse of the sun at every "new moon," but the 5° angle between the planes of orbit of the earth and the moon causes the moon on most of its revolutions to miss the earth's shadow and the moon's

Astronomical Constants

1 light-year	5,880,000,000,000 mi.
velocity of light	186,272 mi./sec.
astronomical unit or distance earth-to-sun	93,003,000 mi.
mean distance, earth to moon	238,860 mi.
general precession	50".26
obliquity of the ecliptic	23° 27' 8".26—0°.4684(t—1900) *
equatorial radius of the earth	3963.34 statute mi.
polar radius of the earth	3949.99 statute mi.
earth's mean radius	3958.89 statute mi.
oblateness of the earth	$\frac{1}{297.0}$
equatorial horizontal parallax of the moon	57' 2".70
earth's mean velocity in orbit	18.5 mi./sec.
sidereal year	365 ^d .2564
tropical year	365 ^d .2422
sidereal month	27 ^d .3217
synodic month	29 ^d .5306
sidereal day	23 ^h 56 ^m 4 ^s .091 of mean-solar time
mean solar day	24 ^h 3 ^m 56 ^s .555 of sidereal time

* t refers to the year in question, for example 1958.

shadow on most trips to miss falling onto the earth.

The tidal effects of the moon are well known. The "spring tides" occur at the "full moon" and "new moon" and the "neap tides" at first quarter and last quarter.

Meteors and Meteorites

Meteorites are meteors that have come down to Earth. Meteors are masses of mineral or metal or both that plunge into the Earth's atmosphere at great speed and become incandescent from the resultant friction so that they are seen in the sky as "fireballs" (bolides) or "shooting stars". The "fireballs" are the larger, make a greater flash across the sky and sometimes explode. Meteors come in all sizes but most of them verge on the microscopic and burn up completely in the flash that makes them visible from 40 to 60 miles above the Earth's surface. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites.

The largest meteorite ever found is located near Grootfontein, Southwest Africa, and its weight is estimated between 50 and 70 tons. The second largest meteorite (the Ahnighito, weight 34 tons) was found by Admiral Peary, Arctic explorer, at Cape York, Greenland, and is now on exhibition in the Hayden Planetarium, New York City. The largest meteorite found on United States soil is the Willamette (weight 15½ tons), which fell near Portland, Oreg., and is now in the American Museum of Natural History, New York City.

Craters produced by the fall of meteorites have been found in many countries. The first to be recognized and the largest known is Meteor Crater in Arizona, a depression about 4,000 feet in diameter, about 600 feet deep, and with exterior walls rising 150 feet above the surrounding plain. Me-

teor craters have been found near Odessa, Texas; Haviland, Kansas; in the Arabian Desert; in Central Australia and—a notable group of fifty or more—in the region of the Stony Tunguska River in northern Siberia.

Many meteors travel in swarms, believed in some cases to be disintegrated comets. The Perseid shower that occurs annually Aug. 10-14 is thought by some astronomers to be all that remains of Tuttle's Comet and the Leonid shower, which reaches a maximum in mid-November every 33 years, similarly is suspected of being what is left of Tempel's Comet. The Leonid shower of 1833 was the greatest meteor display of which astronomers have record.

Eclipses in 1959

(1) *Partial eclipse of the moon*, Mar. 24-25, visible in general in Asia, Australia, Africa, Europe, and Antarctica. The eclipse is a small one, only 0.3 of the moon's diameter being in the deep shadow at mid-eclipse, which occurs Mar. 25, 0:11 A.M., 60th-meridian-east standard time.

(2) *Annular eclipse of the sun*, Apr. 8 (Australian time). The path of the annular phase begins in the Indian Ocean, southwest of Australia, extends across Australia from the southwest corner (at Perth) to the northeastern region (at Cooktown), across the southern part of the Solomon Islands, and ends in the Pacific Ocean. The maximum duration of eclipse (7^m26^s) will occur in northeastern Australia. From stations along the central line, a rim of the sun equal to 0.07 of the solar radius will be seen to encircle the black silhouette of the moon. Partial phases may be visible from most of the islands of Australasia, New Zealand, and east Antarctica.

(3) *Total eclipse of the sun*, Oct. 2. The path of totality extends from central New England across the Atlantic Ocean, enters

the African coast at Rio de Oro, takes a southeasterly and eastward course, leaving the coast at the Italian Somaliland. The maximum duration of eclipse (3^m2^s) occurs in French West Africa. On our east coast mid-eclipse occurs around sunrise. Totality will be witnessed from Cambridge, Mass., and near-totality from stations north and south of that point. At New York, 0.93 of the sun's disc will be eclipsed, and the end of the eclipse will be seen from Maine to Florida.

Important Meteor Showers

Date	Meteor stream	Radiant in constellation
Jan. 1-4	Quadrantids	Boötes
Feb. 5-10	Alpha Aurigids	Auriga
Mar. 10-12	Zeta Boötids	Boötes
Apr. 19-23	Lyrids	Hercules
May 1-6	May Aquarids	Aquarius
May 30	Eta Pegasids	Pegasus
June 27-30	Pons-Winnecke meteors	Draco
July 14	Alpha Cygnids	Cygnus
July 26-31	Delta Aquarids	Aquarius
Aug. 10-14	Perseids	Cassiopeia
Aug. 10-20	Kappa Cygnids	Cygnus
Aug. 21-31	Zeta Draconids	Draco
Sept. 22	Alpha Aurigids	Auriga
Oct. 2	Quadrantids	Boötes
Oct. 9	Giacobinids	Draco
Oct. 18-23	Orionids	Orion
Nov. 14-18	Leonids	Leo
Dec. 10-13	Geminids	Gemini

The Atmosphere

The atmosphere of the Earth—the blanket of air that surrounds our globe and is essential to life—is of interest to astronomers because of its effect on the light that comes to us from heavenly bodies. Air has weight and volume. It refracts (bends or changes the direction of) light rays that enter it. Due to this refraction, we are able to see the Sun and the Moon before they rise and after they set. The "twinkling" of the stars is caused by convection currents in the air that have a rapidly changing refractive effect on the light from the stars. Our twilight is produced by the diffusion in the atmosphere of light from the Sun when it is below the horizon. Meteors become visible when they are heated to incandescence by friction with the atmosphere when, from outer space, they plunge into it at terrific speed.

Prof. Carl Störmer of the University of Oslo measured the height of the atmosphere and found it to be more than 600 miles, but about half of it by weight is below 18,000 feet. Although we may remark blandly that something is "as light as air," the Earth's atmosphere in bulk is of such enormous weight that at sea level it exerts a pressure of approximately 14.7 pounds per square inch. At higher levels, of course, the pressure is less.

Chemically, the atmosphere is composed of nitrogen (approximately 78 per cent by volume), oxygen (approximately 21 per cent by volume), and extremely minor amounts (about 1 per cent in all by volume) of argon, neon, helium, hydrogen and carbon dioxide. There is also present in the air a varying amount of water vapor, which is known as humidity and is distressing when the percentage is high in warm weather.

The First 25 Minor Planets

Name	Mag.	Discovery
1. Ceres	7.4	1801
2. Pallas	8.0	1802
3. Juno	8.7	1804
4. Vesta	6.5	1807
5. Astraea	9.9	1845
6. Hebe	8.5	1847
7. Iris	8.4	1847
8. Flora	8.9	1847
9. Metis	8.9	1848
10. Hygiea	9.5	1849
11. Parthenope	9.3	1850
12. Victoria	9.7	1850
13. Egeria	9.7	1850
14. Irene	9.7	1851
15. Eunomia	8.6	1851
16. Psyche	9.6	1852
17. Thetis	10.1	1852
18. Melpomene	9.3	1852
19. Fortuna	9.8	1852
20. Massalia	9.2	1852
21. Lutetia	10.1	1852
22. Kalliope	9.8	1852
23. Thalia	10.5	1852
24. Themis	10.8	1853
25. Phocaea	10.5	1853

Notable Telescopes of the World

Refractor Telescopes

Size in inches	Observatory	Location
40	Yerkes	Williams Bay, Wis.
36	Lick	Mt. Hamilton, Calif.
32.7	Paris (Univ. of)	Meudon, France
31.5	Astrophysical	Potsdam, Germany
30	Allegheny	Pittsburgh, Pa.
30	Bischoffsheim	Nice, France
30	Poulkova	Leningrad, U.S.S.R.

Reflector Telescopes

200	Palomar	Palomar Mt., Calif.
120	Lick	Mt. Hamilton, Calif.
100	Mt. Wilson	Pasadena, Calif.
82	McDonald	Mt. Locke, Texas
74	Dunlap	Richmond Hill, Ont.
72	Lord Ross (dismantled)	Parsonstown, Ireland
72	Dominion Astrophysical	Victoria, B. C.
69	Perkins	Delaware, Ohio
61	Harvard	Harvard, Mass.
60	Bloemfontein	Bloemfontein, U. of S. Af.
60	Mt. Wilson	Pasadena, Calif.
60	Córdoba	Bosque Alegre, Argentina

WORLD HISTORY



A GUIDE TO MAIN HISTORICAL, POLITICAL, ECONOMIC, GEOGRAPHIC AND SOCIAL FACTS

Prepared by the Editorial Staff of the
INFORMATION PLEASE ALMANAC

In consultation with the Editorial Staff of
ENCYCLOPAEDIA BRITANNICA

For current information on all countries, see **WORLD POLITICS TODAY**.

Afghanistan (Kingdom)

Area: 250,966 square miles.*
Population (est. 1953): 12,000,000*
(Pushtu, 60.5%; Tajik, 30.7%; Uzbek, 5%;
Mongolian and others, 3.8%).
Density per square mile: 51.8.
Ruler: Mohammed Zahir Shah.
Prime Minister: Mohammed Daud Khan.
Principal cities (est. 1953): Kabul, 310,-
000 (capital); Kandahar, 195,000 (trading
center); Herat, 150,000 (farming center).
Monetary unit: Afghani.
Languages: Pushtu (official), Persian.
Religion: Mohammedan (Sunni, 90%;
Shiah, 10%).

* Unofficial estimate (no census ever taken).

HISTORY AND GOVERNMENT. Wedged between Pakistan, Iran, and the U.S.S.R. in southwestern Asia without outlet to the sea, Afghanistan did not become an independent state until 1747. Previously, it had been either a cluster of small states under nominal Arab rule, part of Mongol or Mogul empires, or dismembered among India, Persia, and the Uzbeks.

In 1880, Great Britain recognized Abdur Rahman Khan as Emir and gave him an annual subsidy of more than \$500,000 to delegate management of his foreign relations to Britain.

On Aug. 8, 1919, a treaty was signed making Afghanistan free and independent of all British control. The country maintained strict neutrality in World War II, and was admitted to the United Nations in Nov. 1946.

Under the Constitution, promulgated in 1932, authority is vested in the sovereign and Parliament, which has a Senate of fifty members, who are named for life by the

sovereign, and a National Assembly of 171 elected members. Executive power is exercised by the sovereign and Cabinet headed by the Prime Minister.

ECONOMIC CONDITIONS. Only a fifth of the soil is under cultivation, the greater part of the country being mountainous and rocky. Farming is confined to the fertile valleys and plains, sometimes with the aid of irrigation. Two crops a year are usually grown. Important ones include fruits and nuts, castor beans, cereals, madder, tobacco, cotton and vegetables. Wheat is the staple food. The fat-tailed indigenous sheep is a principal source of meat and wearing apparel.

Industry is still in a primary stage of development. Manufactures include cotton and woolen textiles and clothing, soap, leather, matches, beet sugar and furniture.

Among the leading exports are karakul skins (mostly to the U.S.), cotton, wool, rugs, carpets, spices and dried fruits. Most of the trade normally is carried on through Pakistan; wool and cotton are exported to the U.S.S.R. in return for consumers' goods.

Afghanistan has no railways or navigable streams. Camels and pack horses are still used by the natives, but motor transport is of increasing importance.

Both mineral and forest resources are largely unexploited. There are deposits of beryllium, chromite, coal, copper, gold, iron ore, lapis lazuli, oil, silver and sulfur.

NATURAL FEATURES. Afghanistan, approximately the size of Texas, is split east to west by the Hindu Kush range of the Himalayas, rising in the east to heights of 24,000 feet. Except in the southwest, most of the country is covered by high snow-capped mountains and deep valleys.

Albania (People's Republic)

(Republika Popullëre e Shqipërisë)

Area: 11,100 square miles.

Population (1956): 1,421,000 (Albanian 99.8%; others, .2%).

Density per square mile: 125.6.

Chairman of Presidium: Hadji Leshi.

Premier: Mehmet Shehu

Principal cities (est. 1949): Tirana, 80,000 (capital); Scutari, 30,000 (northern trading center); Koritsa, 28,000 (farming center).

Monetary unit: Lek.

Language: Albanian.

Religions (est. 1953): Moslem, 65%; Greek Orthodox, 23%; Roman Catholic, 11%; others, 1%.

HISTORY AND GOVERNMENT. After the fall of the Roman Empire, Albania became part of the Byzantine Empire and was successively invaded by Goths, Serbs, and Bulgarians. From 1014 to 1204 it was again under Byzantine rule. An alliance of Albanian chieftains (1444-66) under Skanderbeg failed to halt the advance of the Turks, and the country remained under at least nominal Turkish rule for more than four centuries, until it proclaimed its independence on Nov. 28, 1912.

During World War I Albania was variously occupied by Italian, Greek, French, Serb and Austro-Bulgarian forces. On Aug. 2, 1920, Italy recognized Albanian independence and evacuated the country. In 1927, after concluding pacts which placed Albania in Italy's sphere of influence, Zogu, President of the new Albanian republic since 1925, proclaimed himself King Zog I.

During the Greco-Italian war of 1940-41, the Greek armies pushed the Italians back from the Albanian border and occupied a large part of southern Albania. When Germany attacked Greece and Yugoslavia in April, 1941, however, the Greeks withdrew quickly, and the Axis occupation of Albania was complete.

Albania was free of the Axis yoke by the end of 1944, and a leftist provisional government under Colonel General Enver Hoxha was established.

Under its 1945 Constitution, Albania has a typical Soviet government. Supreme power is vested in the popularly elected National Assembly, to which the Cabinet, headed by the Premier, is responsible.

ECONOMIC CONDITIONS. Albania is still a primitive country where each family tries to provide most of its own needs. Nearly the whole population is engaged in combined farming and stock-raising. Only a small portion of the central part is fit for tilling. Corn is the chief crop. Others are wheat, tobacco, oats, barley, rye, spelt, olives, and citrus fruit. Factories produce food products, cement and textiles; a large dam and power station was completed near Tirana in 1950.

Albania's postwar trade has been limited for the most part to the Soviet bloc. Important exports include crude oil, copper and chrome ore.

Mineral wealth, thought to be considerable, is relatively unexploited. The principal mineral is petroleum. Others include asphalt, bitumen, bauxite, chromite, copper, lignite, and pyrites.

NATURAL FEATURES. Albania is a mountainous state, largely over 3,000 ft. above sea level, with a narrow marshy coastal plain crossed by several rivers. The interior mountain plateaus and basins contain the centers of population.

Arabia

POLITICAL DIVISIONS OF ARABIA

Name	Area (sq. mi.)	Population (est. 1955)
Aden colony (British)	108	138,441†
Aden protectorate*	112,000	800,000
Bahrain Islands		
(Sultanate)*	231	120,000
Kuwait (Sheikdom)*	8,000	200,000§
Oman and Masqat		
(Sultanate)*	82,000	550,000
Qatar (Sheikdom)*	8,500	35,000
Saudi Arabia		
(Kingdom)	617,760	7,000,000†
Trucial Coast (Sheikdoms)*	5,792	80,000
Yemen (Kingdom)	75,290	4,500,000

* British protectorate. † 1955 census. ‡ Estimate 1952. § Estimate 1954.

The Arabian peninsula is at the southwest extremity of Asia. Its rich oil deposits and proximity to Palestine gave it special importance after World War II. Once a political unit, today it consists of the kingdoms of Saudi Arabia and Yemen, the British colony of Aden and six British protectorates.

The peninsula, with an area more than three times that of Texas, and an extreme length of 1,400 miles, is generally a plateau sloping gently eastward from a mountain range that averages 5,000 feet in elevation and runs along its entire west side within ten or fifteen miles of the Red Sea. The range reaches a maximum of 12,336 feet in Yemen to the southwest. Arabia has no rivers and no forests and is principally a desert dotted with many oases.

Mohammed united all Arabs in the seventh century A.D., and his followers, led by the caliphs, founded a great empire with its capital at Medina. Later, the caliphate capital was transferred to Damascus and then Baghdad, but Arabia retained its importance because of the holy cities of Mecca and Medina. In the sixteenth and seventeenth centuries, the Turks established at least nominal rule over much of

Arabia, and in the middle of the eighteenth century it was divided into separate principalities.

Through agreements with local rulers, the British extended their rule over the southern and eastern coasts in the nineteenth century. At the same time, the Wahhabis, a religious sect advocating strict adherence to Mohammed's teachings, gained control over most of central and eastern Arabia, and their work was the beginning of the present Saudi Arabia.

Aden and Bahrein Islands. See
British Commonwealth: Asia

Kuwait (Sheikdom)

Kuwait, on the northwestern shore of the Persian Gulf, is an independent state ruled by Sheik Abdullah as-Salim as-Subah. British protection, first exercised in 1898, has several times prevented it from being absorbed by Saudi Arabia. The territory surrounding Al Kuwait, its port, is largely desert; its trade consists of exchanging Arab goods from the interior for textiles, rice, sugar, and other necessities. Kuwait's petroleum reserves, estimated at 9 billion barrels, are under concession to the Kuwait Oil Co. Ltd. (owned jointly by Gulf Oil Corp. and British Petroleum Co. Ltd.), which pays one-half its profits to the Sheik. Production, which began only in 1945, totaled 400,468,382 barrels in 1956. Production is concentrated at the Burgan field, from which petroleum is piped to the new port of Ahmadi for shipment.

South of Kuwait on the Persian Gulf is the Saudi Arabian-Kuwait neutral zone, which under the Treaty of Uqair (1922) belongs in undivided one-half interest to Kuwait and Saudi Arabia. It consists of about 2,000 sq. mi. of uninhabited desert. Oil was discovered in 1953 by American Independent Oil Co. Production totalled 11,724,585 barrels in 1956.

Oman and Masqat (Sultanate)

Occupying the mountainous southeastern part of the peninsula, Oman is nominally an independent state under the rule of Sultan Sayyid Sa'id bin Taimur. It has been under British protection since the nineteenth century. The state is best known for its date cultivation, and its riding camels are considered the best in the world. Trade is mainly to and from India. The capital is Masqat (population 1954: 5,500).

Qatar (Sheikdom)

Qatar occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled, under British protection, by Sheik Ali bin Abdullah al-Thani. The whole area is claimed by Saudi Arabia. Oil deposits are being exploited by a subsidiary of the Iraq Petroleum Co.; output in 1956 was about 45,147,600 barrels.

Saudi Arabia. See page 775.

Trucial Coast (Sheikdoms)

This area, extending along part of the Gulf of Oman and the southern coast of the Persian Gulf, is ruled by seven semi-independent sheiks. Treaties signed with Britain in 1853 and 1892 provided that the sheiks should not cede or sell any part of their land to any other power.

Yemen. See page 788.

Argentina (Republic)

(República Argentina)

Area: 1,084,359 square miles.

Population (est. 1957): 19,858,000 (approximately 97% of European descent, chiefly Spanish and Italian; 3% Indian and other).

Density per square mile: 18.0.

President: Arturo Frondizi.

Principal cities (est. 1955): Buenos Aires, 3,555,000 (capital and chief port); (est. 1950) Rosario, 467,937 (flour milling); Córdoba, 369,886 (northwest farming center); Avellaneda, 278,621 (industrial suburb of Buenos Aires); La Plata, 207,031 (seaport, meat packing); Lanús, 244,473 (suburb of Buenos Aires).

Monetary unit: Peso.

Languages: Spanish (official), Italian.

Religions (census 1947): Roman Catholic, 92.7%; Protestant, 1.9%; Jewish, 1.6%; others and unknown, 3.8%.

HISTORY. Discovered in 1516 by Juan Díaz de Solís, Argentina developed slowly under Spanish colonial rule. Buenos Aires was settled in 1580; the cattle industry was thriving as early as 1600.

Invading British forces were expelled in 1806-07, and when Napoleon conquered Spain, the Argentinians set up their own government in the name of the Spanish King in 1810. On July 9, 1816, independence was formally declared.

President Hipólito Irigoyen (1916-22) refused to abandon Argentinian neutrality in World War I. Re-elected in 1928, Irigoyen, a radical, was ousted two years later by a conservative revolution led by General José Uriburu. The latter's successor, General Agustín Justo (1932-38) followed a moderate policy and undertook a large public works program.

Argentina proclaimed neutrality at the outbreak of World War II, but in general co-operated in hemispheric defense programs. In the closing months of the war, the nation declared war on the Axis (March 27, 1945) and signed the Act of Chapultepec the following April 4. Diplomatic recognition and admission to the

U. N. followed. Juan D. Perón, then an army colonel, emerged as strongman and won the 1946 presidential elections. Perón was re-elected in 1951.

Long-smouldering opposition, fanned by worsening relations with the Catholic Church, finally resulted in Perón's overthrow in Sept. 1955 in a coup led by the armed forces. Perón fled to exile and his party as well as Congress was dissolved. (For an assessment of the Frondizi regime, see *World Politics* section.)

GOVERNMENT. Argentina is a federal union of 22 provinces and the federal district. Under the Constitution of 1853 (restored by decree on May 1, 1956), the President and Vice President are elected every 6 years by electors who are chosen by direct vote. The President appoints his Cabinet. The Vice President presides over the Senate but has no other powers. Neither is eligible for immediate re-election. The Congress has two houses—a 46-member Senate elected by the provincial legislatures for 9-year terms and a Chamber of Deputies popularly elected for 4-year terms.

Each province has its own constitution, elected governor, legislature and judiciary, but the President may in a crisis take over the local government.

ECONOMIC CONDITIONS.

Agriculture. A farming and stock-raising nation, Argentina devotes some 40% of its area to pasture and 10% to cultivation. Cotton, sugar cane and fruits are important, and Argentina is the world's largest producer of yerba maté (Paraguay tea), the national beverage. The 1956 wine production (preliminary) was 354,300,000 gallons (1951-55 average: 412,000,000 gallons).

Cattle raising predominates on the pampas, especially in Buenos Aires province. Sheep raising is more important in Patagonia. In 1956 there were 45,400,000 cattle, 43,866,636 sheep, 3,858,475 pigs, 4,848,785 horses. Wool production in 1955 was about 355,000,000 lb., greasy basis.

Manufacturing. Industrial expansion was accelerated during World War II by the shortage of imports, but industry is still closely allied to agriculture. The principal industry is meat packing, followed by flour milling, textiles, sugar refining, dairy products, quebracho extraction and wine. Jeep production was started in 1956 and a steel plant is under construction at San Nicolas.

Trade. Leading exports in 1956 were cereals and linseed (31%), meat (26%), wool (13%), and hides (7%); leading imports, machinery and vehicles (23%), fuel and lubricants (12%), and iron and steel and manufactures (8%). Leading customers were the United Kingdom (23%), the U. S. (12%), Germany (12%), and Italy

(6%); leading suppliers, the U. S. (20%), Germany (10%), Brazil (7%), and Venezuela (7%).

NATURAL FEATURES AND RESOURCES. Second in South America to Brazil in size and population, Argentina is a plain, rising from the Atlantic to the Chilean border and the towering Andes peaks, including Aconcagua, 22,835 feet, the highest peak in the world outside Asia. The northern area is the swampy and partly wooded Gran Chaco. South of that are the rolling, fertile pampas, rich for agriculture and grazing, and supporting most of Argentina's population. Next southward is Patagonia, a region of cool, arid steppes with some wooded and fertile sections. The eastern part of Tierra del Fuego, the island southern tip of South America, belongs to Argentina.

The three great rivers which make up the Plata system—the Paraná, Paraguay and Uruguay—are important commercial arteries in northern Argentina. Rosario and Santa Fé, 260 and 360 miles respectively above Buenos Aires on the Paraná, are accessible to ocean vessels.

Minerals. Argentina must import most of nearly every mineral it uses. Oil is produced in Patagonia (1956: 31,080,000 barrels). The government announced discovery of uranium deposits in Feb., 1947. Imports of fuels and lubricants totaled 9,993,900 metric tons in 1956.

Forests. The Gran Chaco area is the world's chief source of quebracho extract. Total exports of this tanning agent obtained from quebracho logs in 1954 were 153,000 metric tons, part of which was re-exported from Paraguay.

Austria (Republic) **(Republik Österreich)**

Area: 32,374 square miles.

Population (est. 1956): 6,983,000 (practically all Austrian).

Density per square mile: 215.7.

President: Dr. Adolf Schärf.

Chancellor: Julius Raab.

Principal cities (census 1951): Vienna, 1,766,102 (capital, industrial center); Graz, 226,453 (industrial center); Linz, 184,685 (industrial center); Salzburg, 102,927 (tourist center); Innsbruck, 95,055 (tourist center).

Monetary unit: Schilling.

Language: German.

Religions (census 1951): Roman Catholic, 89%; Protestant, 6%; others, 5%.

HISTORY AND GOVERNMENT: (See *World Politics* section.)

ECONOMIC CONDITIONS. Agriculture employs approximately one-third of the population but the country is heavily dependent on imported foodstuffs. Mixed

farming predominates. Rye and wheat are the leading cereals. Stock raising and dairy farming both in the Alpine pastures and the lowlands of the east are of importance.

Austria is primarily an industrial country, with 41% of the population engaged in industry. Most important are the metallurgical, engineering, textile and food processing industries. Medium- and small-sized firms with specialized lines predominate, although a few large enterprises exist. Nationalized plants employ about one-fifth of the industrial labor force. The major steel and aluminum plants are in Upper Austria.

Leading exports in 1956 were iron and steel and other metals (23%), timber (21%) and machinery, electrical equipment and vehicles (13%); leading imports, machinery, electrical equipment and vehicles (20%), food (15%) and mineral fuels (14%). Leading customers were Western Germany (23%), Italy (17%), Switzerland (6%), and the United Kingdom (5%); leading suppliers, Western Germany (34%), the U. S. (13%), Italy (8%), and the United Kingdom (8%).

NATURAL FEATURES AND RESOURCES. Austria covers an area about equal to that of Scotland and includes much of the mountainous territory of the eastern Alps (about 92.3 per cent of the country). The country contains many snowfields, glaciers, and snow-capped peaks. The principal river is the Danube. Forests and woodlands cover about 40%.

Austria possesses valuable mineral resources. In Styria lies one of the largest European deposits of iron ore. Copper is mined in Salzburg, Tyrol, and Lower Austria, and lead and zinc in Carinthia. Large supplies of coal and coke must be imported, but extensive water power resources are available for exploitation. Petroleum fields are in the Zistersdorf and Mühlfeld areas, both in eastern Austria.

Belgium (Kingdom)

(Royaume de Belgique—
Koninkrijk België)

Area: 11,779 square miles.*

Population (est. Dec. 31, 1956): 8,951,443 (Wallon, Flemish).

Density per square mile: 759.9.

Sovereign: Baudouin I.

Premier: Achille van Acker.

Principal cities (est. 1956, including certain suburbs): Brussels, 985,793 (capital); Antwerp, 611,035 (port and commercial center); Liège, 445,378 (iron and steel); Charleroi, 281,541 (industrial center); Ghent, 229,937 (textiles).

Monetary unit: Belgian franc.

Languages (est. 1954): Flemish, 50%; French, 34%; Flemish and French, 15%; German, 1%.

Religion: Predominantly Roman Catholic.

* Including areas taken over from Germany in 1949.

HISTORY. Perhaps the earliest mention of the Belgians in history was in 57-50 B.C., when they were conquered by Julius Caesar. In the Middle Ages the Belgian towns became wealthy and virtually autonomous as great textile centers. Belgium became part of Burgundy in 1385 and, later, part of the Spanish domains of Charles V. By the Treaty of Utrecht, in 1713 Belgium went to Austria, though retaining its autonomy, and from 1792 to 1815 it held a similar status under France. (For recent history and structure of government see *World Politics* section.)

ECONOMIC CONDITIONS. *Agriculture.* About 60% of the total area of Belgium is under cultivation, and one-half the farmed area is devoted to forage crops.

Other crops are fodder beets, flax and fruit. The pastoral industry, especially dairy farming, flourishes. On Jan. 1, 1957, Belgium had 2,254,924 cattle, 1,276,437 hogs, 175,003 horses and 37,540 sheep.

Manufacturing. Belgium is one of the most highly industrialized nations in Europe, largely because of vast, readily accessible coal reserves. Industry chiefly processes imported raw materials for re-export in semifinished or finished form. Of primary importance are iron and steel, nonferrous metals, fabricated metal products and textiles. Associated with iron and steel is a considerable engineering industry, shipbuilding in Antwerp, and machinery and railway stock in Brussels. The centuries-old textile industry produces linen (Courtrai); cotton (the southeast); and synthetic fibers. Antwerp, using the output of mines in the Congo and Angola, rivals Amsterdam in diamond cutting.

Chief customers in 1956 were the Netherlands (22%), France (11%), western Germany (10%), the U. S. (10%) and Britain (6%). Leading sources of imports were western Germany (15%), the Netherlands (13%), the U. S. (12%), France (12%) and Britain (8%). Chief exports were iron and steel and products (28%), thread and fabric (7%), coal, coke and petroleum and products (6%), copper and products (5%) and precious stones and metals (5%).

NATURAL FEATURES AND RESOURCES. The northern third of Belgium is a plain extending eastward from the coast of the North Sea. North of the Sambre-Meuse Rivers is a low plateau, varying from 250 to more than 600 feet in height, and to the south lies the Ardennes plateau,

rising to a maximum of about 2,300 feet. The shallowness of the North Sea off Belgium precludes the development of good harbors; some of the port advantages of Antwerp, on the Schelde River, are offset by the fact that the approaches to it are through Dutch territory.

The principal mineral is coal. The Ardennes coalfield, now nearly exhausted, extends southward into France. The Campine field lies in the northeast.

BELGIAN COLONIAL EMPIRE

Country	Area (sq. mi.)	Population
Belgian Congo (colony)	904,991	12,956,950*
Ruanda-Urundi (U. N. trust terr.)	20,742	4,402,577†

* Dec. 31, 1956. † Dec. 31, 1955.

BELGIAN CONGO—Status: Colony.

Capital: Léopoldville (population Dec. 31, 1954: 299,806; Europeans, 16,887).

Governor General: Léo Pétillon.

Monetary unit: Congolese franc.

Foreign trade (1956) 53% to Belgium, 14% to the U. S.; imports, 35% from Belgium, 20% from the U. S. Chief exports: copper (40%), coffee (8%), cotton (7%), palm oil (5%), diamonds (5%).

Agricultural exports: coffee and cotton. Mineral exports: copper, tin, cassiterite, diamonds (mainly industrial), gold, cobalt, zinc, and uranium.

Forest exports: palm oil, palm kernels, rubber, gum copal.

The mineral-rich Belgian Congo is in central Africa, with a narrow outlet to the Atlantic through the northwestern tip of Portuguese Angola. King Leopold II of Belgium had backed exploration of the area by the English explorer, H. M. Stanley, and in 1885 had been recognized by the great powers as personal sovereign and proprietor of the Congo Free State, as it was then called. The area is now administered by a Governor General responsible to the Cabinet minister for the colonies. The Governor General has unrestricted executive and legislative powers, and the colony has no representative institutions of its own. During World War II it furnished vital war materials to the Allies.

RUANDA-URUNDI—Status: U. N. trust territory, united administratively with the Belgian Congo.

Capital: Usumbura.

Governor General: Léo Pétillon.

Principal products: tin, coffee, gold, cotton, hides.

Ruanda-Urundi, in east Africa, was assigned to Belgium as a mandate by the League of Nations at the end of World War I, before which it was a portion of German East Africa. It is administered under the direction of the Governor General of the Belgian Congo by a Vice Governor General. The area, placed under U. N.

trusteeship in Dec. 1946, is largely mountainous, with livestock grazing the principal native activity.

Bhutan (Kingdom)

Area: 19,305 square miles.

Population (est. 1955): 623,000 (mostly Bhotiya).

Density per square mile: 32.3.

Ruler: Maharaja Jigme Dorji Wangchuk.

Capital: Punakha.

Monetary unit: Indian rupee.

Language: Tibetan dialect.

Religion: Buddhism.

HISTORY. Bhutan is a semi-independent state lying on the southeast slope of the Himalayas, bordered on the north and east by Tibet and on the south and west by the Republic of India. The area is said to have been invaded and settled by Tibetan troops in the 9th century A.D. After almost a century of conflict between the Bhutanese and the British in India, British troops invaded the country in 1865 and negotiated an agreement under which Britain undertook to pay an annual allowance to Bhutan on condition of good behavior. A treaty signed with India in Aug. 1949 increased this subsidy and placed Bhutan's foreign affairs under Indian control.

Until 1907, Bhutan's government was under the dual control of the clergy and laity, but the country is now ruled by a hereditary Maharaja.

The dominant people are the Bhotiyas, who are of Tibetan origin, speak a Tibetan dialect, and profess the same form of Buddhism as is prevalent in Tibet.

ECONOMIC CONDITIONS. The chief crops are rice, corn and millet; the fields, laid out on hillside terraces, are watered by an ingenious system of irrigation. Bhutan is famous for its small though sturdy mountain ponies. The chief industries are metal work, cloth weaving and fine basket and mat work. Trade is insignificant, and much of it is conducted by barter.

NATURAL FEATURES. The whole of Bhutan presents a succession of lofty and rugged mountains running generally from north to south and separated by deep valleys. Mountains in the north reach a height of 24,000 feet.

Bolivia (Republic)

(República Boliviana)

Area: 424,162 square miles.

Population (est. Dec. 31, 1955): 3,273,000 (1950: Indian 52.9%, mestizo 32%, white 14.8%, others .3%).

Density per square mile: 7.5.

President: Hernán Siles Zuñalez.

Principal cities (census 1950): La Paz, 321,063 (de facto capital); Cochabamba,

80,795 (commercial center); Oruro, 62,975 (tin mines); Potosí, 45,758 (mining); Sucre, 40,128 (legal capital).

Monetary unit: Boliviano.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Famous since Spanish colonial days for its mineral wealth, modern Bolivia was once a part of the ancient Incan Empire. After the Spaniards had defeated the Incas during the first part of the 16th century, Bolivia was subjected to the Spanish Viceroyalty of Peru, and its predominantly Indian population was reduced to slavery. The country finally won its independence in 1825; the new republic was named after Simón Bolívar, South America's famed liberator.

Bolivia's political history since independence has been extremely stormy. Since 1825 it has had more than 60 revolutions, 70 Presidents and 11 Constitutions. No elected President has served out his term.

Harassed by internal strife, Bolivia lost great slices of territory to three neighbor nations. Several thousand square miles and its outlet to the Pacific were taken by Chile after a disastrous war in 1879-83. In 1903 a piece of Bolivia's Acre province, rich in rubber, was ceded to Brazil. And in 1938, after a war with Paraguay, Bolivia gave up claim to nearly 100,000 square miles of the Gran Chaco.

GOVERNMENT. Under the 1938 Constitution, Bolivia is a republic, electing by popular vote a President every four years, an 18-member Senate every six years, and a 68-member Chamber of Deputies every four years. The President appoints the members of his Cabinet. The Indian majority was virtually disfranchised until July 1952, when the franchise was conferred on all those who had reached the age of 20, whether literate or illiterate.

ECONOMIC CONDITIONS. Production of such basic foodstuffs as wheat and rice is insufficient for domestic needs, and considerable quantities must be imported. Cattle are raised in the more temperate regions of the east and south, sheep in the departments of La Paz and Cochabamba, and llamas, alpacas, and vicuñas, important sources of hides, wool and, meat, are raised on the plateaus by Indians. The furbearing chinchilla, a native of the colder plateau regions, is also bred.

Tin and other minerals comprise almost the whole of Bolivia's exports. Since the country is landlocked, foreign trade must pass through free ports in Chile and river ports on the Amazon.

Chief exports in 1956 were tin (59%), tungsten (14%), lead (6%), and silver (7%). Leading customers in 1955 were the U. S. (60%) and the United Kingdom (33%); leading suppliers, the U. S. (38%), Argentina (10%), and Germany (9%).

NATURAL FEATURES AND RESOURCES. Landlocked Bolivia is a low alluvial plain throughout 60 per cent of its area toward the east, drained by the Amazon and Plata river systems. The western part, enclosed by two chains of the Andes, is a great plateau—the Altiplano with an average altitude of 12,000 feet. More than 80 per cent of the population lives on the plateau, which also contains La Paz, the highest capital city in the world. Lake Titicaca, half the size of Lake Ontario, is one of the highest large lakes in the world, at an altitude of 12,507 feet. Islands in the lake hold ruins of the ancient Incan civilization.

Mining is the backbone of the economy. Tin, accounting normally for 70 per cent of Bolivian exports, is by far the most important mineral, most of it coming from Potosí and Oruro. During World War II, Bolivia was the world's largest tin producer.

Brazil (Republic)

(Estados Unidos do Brasil)

Area: 3,287,195 square miles.

Population (est. July 1, 1956): 61,268,000 (1950: white, 61.7%; mestizo, 26.5%; Negro, 11.0%; other, 0.8%).

Density per square mile: 18.3.

President: Juscelino Kubitschek de Oliveira.

Principal cities (est. 1955): Rio de Janeiro, 2,725,274 (capital, chief port); (est. 1953) São Paulo, 2,500,000 (coffee and industrial center); Recife (Pernambuco), 560,000 (seaport); Salvador (Baía), 460,000 (seaport); Porto Alegre, 440,000 (seaport); Belo Horizonte, 430,000 (mining); Fortaleza (Ceará), 300,000 (seaport).

Monetary unit: Cruzeiro.

Language: Portuguese.

Religion: Roman Catholic, 95%.

HISTORY. Brazil, the only Latin American nation deriving its culture and language from Portugal, is the largest country in South America, covering nearly half the continent. In the world, it ranks after the U.S.S.R., China and Canada.

Brazil was discovered in 1500 by the Portuguese admiral, Pedro Álvares Cabral. Portugal began colonization in 1532 and Brazil became a royal colony in 1549.

During the Napoleonic wars, the Prince Regent of Portugal (later King John VI) fled his country in advance of the French armies, and set up his royal court at Rio de Janeiro in 1808. When John was drawn home by a revolution in 1820, the Brazilians rebelled at resuming colonial status and declared their independence in 1822 under Pedro, son of John VI. Pedro I abdicated in 1831 in favor of his five-year-

old son, who became Emperor in 1840 as Pedro II.

Although a popular monarch, Pedro II was forced to abdicate in 1889 following a military revolt, after which a republic was set up.

The President during World War I, Wenceslau Braz, co-operated with the Allies and declared war on Germany Oct. 26, 1917. Pres. Washington Luiz Pereira da Souza, 1926-30, had to cope with the world depression and was overthrown by a revolutionary group under Getúlio Vargas, who took over as provisional President.

GOVERNMENT. Under the Constitution of 1946, Brazil is a union of twenty states, five territories and one federal district. The President is popularly elected for a five-year term and may not succeed himself. The national Congress is composed of two houses—the Senate, whose members serve for eight-year terms, and the Chamber of Deputies, elected for four-year terms. Members of Congress are elected by equal, direct, compulsory, and secret suffrage under a system of proportional representation.

All educational instruction is conducted solely in the Portuguese language.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture is a mainstay of Brazil's economy, but only 4 per cent of its area is under cultivation, the rest being grazing, forest, or non-productive land. Brazil leads the world in production of coffee and castor beans, and ranks second in cacao. Production and export of both coffee and cacao are government-controlled. Coffee production in the 1957-1958 season totaled 22,000,000 bags of 132 lb. each.

Livestock is raised nearly everywhere, with the great centers in the central and northern states. On Dec. 31, 1955, there were 38,606,000 hogs, 18,484,000 sheep, and 63,608,000 cattle.

Trade. Leading exports in 1956 were coffee (70%), cotton (8%) and cacao (5%).

Leading customers were the U. S. (50%), Germany (6%), Argentina (4%) and Sweden (4%); leading suppliers, the U. S. (29%), Venezuela (10%), Germany (6%) and the Netherlands Antilles (5%).

Major imports include machinery, Argentine wheat, vehicles, and petroleum products.

NATURAL FEATURES AND RESOURCES. Brazil covers about three-sevenths of South America, extends 2,965 miles north-south, 2,691 miles east-west, and borders every South American state except Chile and Ecuador. Its area would more than blanket that of the U. S.

More than a third of Brazil is drained by the Amazon and its more than 200 tributaries. The Amazon is navigable for ocean steamers to Iquitos, Peru, 2,300 miles upstream. Southern Brazil is drained by the Plata system—the Paraguay, Uruguay and Paraná Rivers. The most important stream entirely within Brazil is the São Francisco, navigable for a thousand miles but broken near its mouth by the 260-foot Paulo Affonso Falls, with estimated potential of 1,000,000 horsepower.

Mineral Resources. Brazil's vast mineral resources are among her least developed assets. The most important are coal (estimated reserves of 5,000,000,000 tons; estimated 1956 production, 2,286,000 metric tons) and iron ore (metal content 65%), found mainly in Minas Gerais (1955 output, 3,600,000 metric tons). Other important minerals are gold (1956) 122,000 troy oz.; manganese ore, (1955) 380,000 tons; petroleum, (1956) 3,885,000 barrels (over 10 times the 1950 output); diamonds; silver; quartz crystals; uranium.

Forests and Fisheries. The largest single forest commodities are timber, chiefly pine from the southern states, and the wax of the carnauba palm, used for insulation and phonograph records and produced commercially only in Brazil (exports 1955: 12,000 metric tons).

BRITISH COMMONWEALTH OF NATIONS

EUROPE

United Kingdom of Great Britain and Northern Ireland

Area: 93,599 square miles (excluding Channel Islands and Isle of Man).

Population (est. 1957): 51,455,000 (English, Scotch, Welsh, Irish).

Density per square mile: 547.1.

Ruler: Queen Elizabeth II.

Prime Minister: Harold Macmillan.

Principal cities (census 1951): London (Greater), 8,346,137 (capital); Birmingham, 1,112,340 (iron and steel); Glasgow, 1,089,555 (seaport, shipbuilding); Liverpool, 789,532 (seaport); Manchester, 793,175 (textiles); Sheffield, 512,834 (steel, cutlery); Leeds, 504,954 (clothing); Edinburgh, 466,770 (capital, Scotland).

Monetary unit: Pound sterling (£).

The Commonwealth of Nations

Europe

America—(cont.)

Political subdivision	Area (sq. mi.)	Population
United Kingdom	93,599	51,209,000 ^a
Channel Islands	75	102,770 ¹
Isle of Man	221	55,213 ¹
Gibraltar	2	24,900 ⁵
Malta	122	313,955 ⁵

Political subdivision	Area (sq. mi.)	Population
Jamaica and dependencies*	4,708	1,550,000 ⁵
Leeward Islands*	422	126,780 ⁵
Trinidad and Tobago*	1,980	742,500 ⁵
Windward Islands*	821	313,400 ⁵

Africa

Asia

Basutoland	11,716	590,000 ⁵
Bechuanaland	275,000	296,000 ⁵
Gambia	4,003	285,000 ⁵
Ghana	91,843	4,691,000 ^a
Kenya	223,478	6,150,000 ^a
Mauritius and dependencies	805	579,123 ^a
Nigeria (including British Cameroons)	373,250	32,780,000 ⁵
Rhodesia and Nyasaland, Federation of:		
Northern Rhodesia	290,323	2,183,100 ^a
Nyasaland	49,177	2,596,800 ^a
Southern Rhodesia	150,354	2,481,200 ^a
St. Helena and dependencies	119	5,355 ^a
Seychelles	156	40,417 ^a
Sierra Leone	27,926	2,050,000 ⁵
Somaliand	67,997	640,000 ⁵
South-West Africa	317,725	458,000 ⁵
Swaziland	6,705	217,000 ⁵
Tanganyika Territory	362,688	8,456,000 ^a
Uganda	93,981	5,593,000 ^a
Union of South Africa	472,733	14,167,000 ⁷
Zanzibar and Pemba	1,020	278,000 ⁵

Aden colony	108	138,441 ⁵
Aden protectorate	112,000	800,000 ⁵
Bahrein Islands	231	120,000 ⁵
Borneo:		
Colony of North Borneo	29,388	389,122 ^a
Brunei	2,226	55,000 ^a
Sarawak	47,069	626,223 ^a
Ceylon	25,332	8,929,000 ^a
Cyprus	3,572	531,000 ^a
Hong Kong	391	2,440,000 ^a
India, Republic of	1,269,640	381,690,000 ⁵
Federation of Malaya	50,690	6,058,317 ⁵
Singapore and dependencies	287	1,212,588 ⁵
Pakistan	364,737	83,603,000 ^a

Oceania

America

Bahamas	4,404	116,530 ⁷
Barbados*	166	229,569 ^a
Bermudas	21	41,992 ^a
British Guiana	82,997	508,000 ^a
British Honduras	8,867	82,333 ^a
Canada	3,619,616	16,420,000 ⁷
Falkland Islands (excluding dependencies)	4,618	2,220 ^a

Australia, Commonwealth of	2,974,581	9,427,558 ^a
Fiji	7,040	345,164 ⁵
Gilbert and Ellice Islands	369	40,000 ⁵
Nauru	8	3,404 ⁵
New Hebrides	5,700	53,000 ⁵
New Zealand	103,740	2,221,169 ⁷
Norfolk Island	13	1,176 ²
Papua-		
New Guinea	183,590	1,701,458 ⁵
Solomon Islands	11,500	103,000 ⁵
Tonga (Friendly Islands)	270	56,838 ^a
Western Samoa	1,131	94,128 ^a

(Note: Each population figure is followed by superior number denoting the year of estimate or census: ¹ for 1957, ^a for 1956, ⁵ for 1955, etc.)

* Member of the British West Indies Federation, formed in January 1958.

Languages: English, Welsh, Gaelic.

Religion: Church of England (established church); Church of Wales (disestablished); Church of Scotland (established church—Presbyterian); Church of Ireland (disestablished); Roman Catholic; Methodist; Congregational; Baptist; Jewish.

HISTORY. Roman invasions of the first century B.C. brought Britain into contact with the continent. When the Roman legions withdrew in the fifth century A.D., Britain fell easy prey to the invading

hordes of Angles, Saxons, and Jutes from Scandinavia and the Low Countries. Seven large kingdoms were established, and the original Britons were forced into Wales and Scotland. It was not until the eleventh century that the country finally became united under the Danish King Canute. Following the death of Edward the Confessor (1066), a dispute about the succession arose, and William Duke of Normandy invaded England, defeating the Saxon noble, Harold II, at the Battle of Hastings (1066).

The Norman conquest was accompanied by the introduction of Norman law and feudalism, changing the customs of England.

The reign of Henry II (1154-89), first of the Plantagenets, saw an increasing centralization of royal power at the expense of the nobles, but in 1215 John (1199-1216) was forced to sign the Magna Carta, which awarded the people, especially the nobles, certain basic rights. Edward I (1272-1307) continued the conquest of Ireland, reduced Wales to subjection, and made some gains in Scotland. In 1314, however, English forces led by Edward II were ousted from Scotland after the battle of Bannockburn. The late thirteenth and early fourteenth centuries saw the development of a separate House of Commons with tax-raising powers.

Edward III's claim to the throne of France led to the Hundred Years' War (1338-1453), which ended with the loss of almost all the large English territory in France. In England the great poverty and discontent caused by the war was intensified by the Black Death, a plague which reduced the population by about one-third. The Wars of the Roses (1455-85), a struggle for the throne between the House of York and the House of Lancaster, were ended by the victory of Henry Tudor (Henry VII) at Bosworth Field (1485).

During the reign of Henry VIII (1509-47), the Church in England asserted its independence from the Roman Catholic Church. Under Edward VI and Mary, the two extremes of religious fanaticism were reached and it remained for Henry's daughter, Elizabeth I (1558-1603), to set up the Church of England on a moderate basis. In 1588 the Spanish Armada, a fleet sent out by Catholic King Philip II of Spain, was defeated by the English and destroyed during a storm. It was during Elizabeth's reign that England became a world power.

Elizabeth's heir was of the house of Stuart—James VI of Scotland—who joined the two crowns as James I (1603-25). The Stuart Kings incurred large debts and were forced either to depend on Parliament for taxes or to raise money by illegal means. In 1642 war broke out between Charles I and a large portion of the Parliament; Charles was defeated and executed in 1649, and the monarchy was then abolished. The Puritan Commonwealth endured for ten years, but after the death (1658) of Oliver Cromwell, the Lord Protector, the government fell to pieces and Charles II was restored to the throne in 1660. The struggle between the King and Parliament continued, but Charles II knew when to compromise. His brother James II (1685-88) possessed none of his ability and was ousted by the Revolution of 1688, which confirmed the predominant position of

AREA AND POPULATION OF MAJOR SUBDIVISIONS*

Subdivision	Area sq. mi.	Population, est. June 1936
England	50,871	44,667,000
Wales	7,474	
Scotland	29,795	5,145,000
Northern Ireland	5,459	1,397,000

* Not including Channel Islands and Isle of Man.

Parliament. James' daughter, Mary, and her husband, William of Orange, now ruled jointly.

The reign of Queen Anne (1702-14) was marked by the Duke of Marlborough's victories over France at Blenheim, Oudenarde, and Malplaquet in the War of the Spanish Succession. England and Scotland meanwhile were joined together by the Act of Union (1707). Upon the death of Anne, the distant claims of the elector of Hanover were recognized, and he became King of England as George I.

The eighteenth century was a period of gradual growth and change. At home the unwillingness of the Hanoverian Kings to rule resulted in the formation by the King's ministers of a Cabinet, headed by a Prime Minister, which directed all public business. Abroad the constant wars with France resulted in expansion of the British Empire all over the globe, particularly in North America and India. This imperial growth was checked by the revolt of the American colonies (1775-81).

The age-long struggle with France broke out again in 1793, and during the lengthy Napoleonic Wars, which ended at Waterloo (1815), England was pitted at one time against almost all of Europe.

The Victorian era, named after Queen Victoria (1837-1901), saw the growth of a democratic system of government which had begun with the Reform Bill of 1832. The two important wars in Victoria's reign were the Crimean War against Russia (1853-56) and the Boer War (1899-1902). The latter was accompanied by enormous extension of England's sway in Africa.

The reign of Edward VII (1901-10) was marked by increasing uneasiness at home and abroad. Within four years after the accession of George V (1910), England entered World War I when Germany invaded Belgium. The nation was led by coalition Cabinets headed first by Herbert Asquith and then (Dec., 1916) by the Welsh statesman, David Lloyd George. The years after the war were marked by labor unrest which culminated in the general strike of 1926. A Labour ministry formed early in 1924 by Ramsay MacDonald fell in October of that year. In 1929 a second Labour government was formed, but the world economic depression forced a change in 1931,

and a national government was formed composed chiefly of Conservative members, although MacDonald remained Prime Minister until 1935. King Edward VIII succeeded to the throne in 1936 on his father's death but abdicated eleven months later (in order to marry an American, Wallis Warfield Simpson, whose second divorce was then pending) in favor of his brother, who became King George VI.

The efforts of Prime Minister Neville Chamberlain to meet by peaceful means the rising threat of Nazism in Germany failed with the German invasion of Poland (Sept. 1, 1939), which was followed by England's entry into World War II (Sept. 3, 1939). Serious Allied reverses in the spring of 1940 led to Chamberlain's resignation and the formation of another coalition war Cabinet by Conservative leader Winston Churchill, who led England through most of World War II. Churchill resigned as the coalition leader shortly after V-E Day, but then formed a "caretaker" government which remained in office until after the parliamentary elections of July 5, 1945, in which the Labour party won an overwhelming victory. The government formed by Clement R. Attlee on July 26 began a moderate socialistic program.

Internationally, the Attlee government continued Britain's close co-operation with the United States through the North Atlantic Treaty and in the Korean war, at the same time solidifying its position in Western Europe in opposition to the U.S.S.R. The Labour regime, returned to office by a slight majority in the parliamentary elections of Feb., 1950, lost by a narrow margin in the Oct., 1951 elections. On Oct. 26 Winston Churchill again became Prime Minister at the head of a Conservative government. George VI died Feb. 6, 1952, and was succeeded by his daughter, Elizabeth II.

Churchill voluntarily stepped down on April 5, 1955, in favor of Sir Anthony Eden, who led the Conservatives to another victory in elections May 26, 1955. The Suez crisis and the abortive Anglo-French invasion of Egypt (Oct. 31, 1956) were followed by Eden's resignation on grounds of ill health (Jan. 9, 1957). Harold Macmillan succeeded him.

(For recent history see article on British Commonwealth in *World Politics* section).

RULER. Queen Elizabeth II, born April 21, 1926, elder daughter of King George VI and Queen Elizabeth, succeeded to the throne on the death of her father, Feb. 6, 1952; married Nov. 20, 1947, to Prince Philip, Duke of Edinburgh, born June 10, 1921; their children are Prince Charles (heir presumptive), born Nov. 14, 1948, and Princess Anne, born Aug. 15, 1950. The

Queen's sister is Princess Margaret Rose, born Aug. 21, 1930; her uncles are Prince Edward Albert, Duke of Windsor (formerly King Edward VIII), born June 23, 1894, and Prince Henry William, Duke of Gloucester, born March 31, 1900.

GOVERNMENT. The United Kingdom is a constitutional monarchy, with a Queen and a Parliament which has two houses: the House of Lords with about 830 hereditary peers, 26 spiritual peers, 16 Scottish representative peers, a number of Irish representative peers (vacancies are no longer filled), and a few life peers who hold or have held high judicial office; and the House of Commons, numbering since 1955 630 members elected by practically universal suffrage. Supreme legislative power is vested in Parliament, which holds office for five years unless sooner dissolved. The executive power of the Crown is exercised by the Cabinet, headed by the Prime Minister. The latter, normally the head of the party commanding a majority in the House of Commons, is appointed by the sovereign, with whose consent he in turn appoints the rest of the Cabinet. All ministers must be members of one or the other house of Parliament; they are individually and collectively responsible to the Crown, the Prime Minister and Parliament. The Cabinet proposes bills and arranges the business of Parliament but it depends entirely on the votes of confidence in Commons. The lords cannot hold up "money" bills, but they can delay other bills for a period of at least one year.

By the Act of Union (1707) the Scottish Parliament was assimilated with that of England, and Scotland is now represented in Commons by seventy-one members. The Secretary of State for Scotland, a member of the Cabinet, is responsible for the administration of Scottish affairs.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture remains one of Britain's chief industries, employing about 800,000 persons.

Livestock (June 30, 1956) included 10,907,000 cattle, 23,594,000 sheep, 5,474,000 hogs, and 92,464,000 poultry. Cattle occupy a predominant position in British agriculture, accounting for about 40 per cent of the total farm output.

Industry. The most important British manufacture is heavy goods such as machinery, tools, bridges, and locomotives; industry is concentrated in the north and Midlands of England. Sheffield is the center of the steel industry, while the china industry is concentrated in the Midlands. The cotton industry is centered in Lancashire; Liverpool, Manchester, Oldham, Preston, and Bolton are the main manufacturing towns. The wool industry, England's

oldest large trade, is located just east of the cotton towns, at Leeds, Bradford, and Hull in Yorkshire. An important industrial region is the central Lowlands of Scotland, where woollens and other fabrics, lace, glass, paper, steel, and pig iron are produced. Important shipyards are located along the coast.

The total working population on Dec. 31, 1956, was 24,087,000.

Trade. The United Kingdom's economic prosperity is dependent on its foreign trade, and the nation made great efforts after World War II to build up its volume of exports.

Leading exports are machinery (non-electrical), road vehicles and aircraft, chemicals, electrical machinery, iron and steel.

Leading imports are meat, fruits and vegetables, cereals and cereal preparations, nonferrous base metals, wool.

Chief customers are United States, Australia, Canada, India, South Africa, and New Zealand.

Chief sources of imports are:

	1954	1955	1956
United States	282.4	419.9	408.5
Canada	272.8	343.7	347.6
Australia	235.9	263.9	236.4
New Zealand	176.0	179.9	197.0
Sweden	116.9	139.6	145.0
India	148.4	159.0	141.5

Communications. The merchant marine on June 30, 1956, represented about 18.5% of the world total and was second only to the U. S. merchant fleet.

Nationalization of the railway and canal systems in Great Britain became effective Jan. 1, 1948, and they are now operated by the government's Transport Commission.

British air services throughout the world are nationalized under the Minister of Civil Aviation. Service is supplied by two public corporations—British Overseas Airways (BOAC) and British European Airways.

NATURAL FEATURES AND RESOURCES. The United Kingdom, consisting of England, Wales, Scotland, and Northern Ireland, is a third the size of Texas. England, in the southeast part of the British Isles, is separated from Scotland on the north by the granite Cheviot Hills; from them the Pennine chain of uplands extends south through the center of England, reaching its highest point in the Lake district in the northwest. To the west along the border of Wales—a land of steep hills and valleys—are the Cambrian Mountains while the Cotswolds, a range of hills in Gloucestershire, extend into the surrounding shires. The remainder of England is plain land, though not necessarily flat, with the rocky

sand-topped moors in the southwest, the rolling downs in the south and southeast and the reclaimed marshes of the low-lying Fens in the east central districts. Scotland is divided into three physical regions—the Highlands, the Central Lowlands, containing two-thirds of the population, and the Southern Uplands. The western Highland coast is intersected throughout by long narrow sea-lochs or fiords. Scotland also includes the Outer and Inner Hebrides and other islands off the west coast, and the Orkney and Shetland Islands off the north coast.

Wales is generally hilly; the Snowdon range in the northern part culminates in Mt. Snowdon (3,557 ft.), highest in either England or Wales.

Important rivers flowing into the North Sea are the Thames, Humber, Tees, and Tyne. In the west are the Severn and the Wye, which empty into the Bristol Channel and are navigable, as are the Mersey and Ribble.

Minerals. Great Britain's most important mineral resource is coal, which was responsible to a large extent for British industrial supremacy during the late eighteenth and the nineteenth centuries. The coal mines were nationalized in 1946. Reserves have been variously estimated at from 150,000 million to 200,000 million tons. Prior to World War II, coal was exported in declining amounts to the continent, mainly to France, Sweden, Denmark and Italy. Since the war, however, Britain has been hard put to meet her own minimum domestic requirements.

Most of the British iron ore is produced in England, especially in Cumberland, Lancashire, and Staffordshire. Tin ore and copper are obtained almost exclusively from Cornwall, while lead comes mainly from Flint, Durham, and Derbyshire. Zinc occurs mainly in North Wales, the north of England, the Isle of Man, and the county of Dumfries in Scotland. The whole British supply of china clay (kaolin)—of great importance in the ceramic, paper-making, bleaching, and chemical industries—comes from Cornwall. Petroleum production is negligible, but oil shale exists in large quantities.

Water Power. The most important potential sources of water power are in the highlands of Scotland, North Wales, and Cumberland. Nationalization of the electric and gas industries became effective in 1948.

Forests and Fisheries. Great Britain was once heavily forested, but centuries of timber cutting and clearing have denuded the country of the original forests. Woodland of all types approximates 3,000,000 acres, and barely 40 per cent of Britain's surface is covered with timber. Consequently the nation is heavily dependent on imported timber.

Great Britain's sea fishing industry is among the most important in the world. The principal kinds of fish caught are herring, cod, haddock, plaice, and hake, classed as wet fish, and, among shellfish, oysters, crabs, and lobsters. The most important factor in the export trade is salted herring, which ordinarily represents about 70 per cent of the total. The principal grounds frequented by British fishermen are the North Sea; off Iceland; the Faeroes; south of Ireland; west of Scotland; west of Ireland; the Irish Sea; and the English Channel.

NORTHERN IRELAND

(Part of United Kingdom)

Area: 5,459 square miles.

Population (est. June 1956): 1,397,000.

Density per square mile: 255.9.

Governor: Lord Wakehurst.

Prime Minister: Viscount Brookeborough.

Principal cities (census 1951): Belfast, 443,671 (capital); Londonderry, 50,092 (clothing).

Monetary unit: Pound sterling.

Language: English, Gaelic.

Religions (census 1951): Roman Catholic (34.4%), Presbyterian (29.9%), Church of Ireland (25.8%), Methodist (4.9%), others (5%).

Northern Ireland comprises the six predominantly Protestant counties of Antrim, Armagh, Down, Fermanagh, Londonderry, and Tyrone (collectively known as Ulster), which form the northern part of the island of Ireland. The area is an integral part of the United Kingdom, but under the terms of the Government of Ireland Act (1920) it has a semi-autonomous government.

The government has only limited powers for local purposes, and many matters are reserved to the central government at Westminster. Executive authority is vested in the Crown-appointed Governor, who is advised by a Cabinet of eight ministers headed by the Prime Minister. The Parliament consists of the House of Commons of fifty-two members elected for 5-year terms, and the Senate of twenty-six members elected by the House of Commons. The general elections of Oct. 22, 1953, returned thirty-eight Unionists, nine Nationalists and five representatives of other groups to the House. The area is also represented by twelve members in the British Parliament at London.

Agriculture is the largest single industry; about two-thirds of the country is devoted to crops and pasture under a system of mixed farming. The leading crops include potatoes, oats, and flax. In 1955 there were 905,890 cattle, 878,480 sheep, and 696,410 hogs.

The two principal manufacturing indus-

tries are linen and shipbuilding, both centered in Belfast. The linen industry was established by Huguenot weavers who fled France after the revocation of the Edict of Nantes in 1685.

ISLE OF MAN

Lieutenant Governor: Sir Ambrose Dundas.

Located in the Irish Sea, equidistant from Scotland, Ireland, and England, the Isle of Man is administered according to its own laws by a government composed of the Lieutenant Governor, a Legislative Council, and a House of Keys, one of the most ancient legislative assemblies in the world.

CHANNEL ISLANDS

Lieutenant Governor of Jersey: Adm. Sir Randolph Nicholson.

Lieutenant Governor of Guernsey: Air Marshal Sir Thomas Elmhirst.

This group of islands, lying in the English Channel off the northwest coast of France, is the only portion of the Duchy of Normandy belonging to the English Crown, to which it has been attached since the conquest of 1066. It was the only British possession occupied by Germany during World War II.

For purposes of government the islands are divided into Jersey (45 sq. mi.) and the bailiwick of Guernsey (24 sq. mi.), including Alderney (3 sq. mi.), Sark (2 sq. mi.), Herm, and Jethou. The islands are administered according to their own laws and customs by local governments headed by Crown-appointed Lieutenant Governors. Acts of Parliament in London are not binding on the islands unless they are specifically mentioned.

French is still the official language, although English is the main language of commerce.

GIBRALTAR—Status: Colony.

Governor: Lt. Gen. Sir Harold Redman.

Gibraltar, at the south end of the Iberian Peninsula, is a rocky promontory commanding the western entrance to the Mediterranean. Aside from its strategic importance, it is also a free port, naval base, and coaling station. It was captured by the Arabs crossing from Africa into Spain in A.D. 711. In the fifteenth century it passed to the Moorish ruler of Granada and later became Spanish. It was captured by an Anglo-Dutch force in 1704 during the War of the Spanish Succession and passed to Britain by the Treaty of Utrecht in 1713. Most of the inhabitants are of Spanish, Italian and Maltese descent.

MALTA—Status: Self-governing colony.

Capital: Valletta (population 18,801).

Governor: Maj. Gen. Sir Robert Laycock.

Prime Minister: Dominic Mintoff.

Agricultural products: potatoes, onions, cereals, fruits.

The Maltese islands lie between Europe and Africa, in the central channel linking the eastern and western Mediterranean. The inhabited islands are Malta (95 sq. mi.), Gozo (26 sq. mi.) and Comino (1 sq. mi.). The Knights of St. John (Malta), who obtained the islands from Charles V in 1530, reached their highest fame when they withstood an attack by superior Turkish forces in 1565. Napoleon seized Malta in 1798, but the French forces were ousted by British troops in 1799, and British rule was confirmed by the Treaty of Paris (1814). The principal importance of Malta is its strategic location as a naval base; it was heavily attacked by German and Italian aircraft during World War II but was never invaded by the Axis. Most of the population are Maltese, speaking the Phoenician Maltese language, a tongue akin to Syriac and Arabic. The islands are densely populated (2,554 per square mile in 1956).

Under its 1947 Constitution, Malta enjoys a measure of self-government. The locally-elected Assembly has complete control over domestic affairs, but the British government keeps control over matters dealing with defense and foreign affairs.

AFRICA

BRITISH SOUTH AFRICAN TERRITORIES

High Commissioner: Sir Percivale Lieching.

The three British territories in southern Africa—Basutoland, Bechuanaland and Swaziland—are not part of the Union of South Africa, but are administered by a High Commissioner responsible to the Secretary of State for Commonwealth Relations in the British Cabinet. He also holds the office of High Commissioner for the United Kingdom in the Union of South Africa.

BASUTOLAND—Status: Colony.

Capital: Maseru (population 4,000).

Resident Commissioner: A. G. Chaplin.

Agricultural products: corn, wheat, sorghum.

Basutoland is a mountainous enclave surrounded by the Union of South Africa and bounded by the Orange Free State, Cape Province and Natal. It was constituted a native state under British protection by a treaty signed with the native chief Moshesh in 1843. It was annexed to Cape Colony in 1871, but on Mar. 13, 1884, was restored to direct control by the Crown. The Resident Commissioner is advised by a council of 100, of whom 95 are

nominated by the native chiefs who administer the affairs of their tribes.

The population is restricted almost entirely to the lowland strip in the west; the white population (1,676 by the last census, in 1946) consists solely of officials, missionaries, traders and a few labor agents for employers in the Union of South Africa. About 100,000 natives are regularly employed in the Union. Sheep raising is highly developed. Land is the common property of the nation and is held in trust by the chiefs.

BECHUANALAND—Status: Protectorate.
Administrative center: Mafeking, in Cape Province (population 4,666).

Resident Commissioner: M. O. Wray.
Agricultural products: hides and skins, cattle, butter, millet, maize.
Minerals: gold and silver.

Bechuanaland lies in south central Africa, bounded on the south and southeast by the Union of South Africa, on the west by South-West Africa, on the north by Angola and Northern Rhodesia and on the northeast by Southern Rhodesia. Its average elevation is 3,300 feet and the greater part is gently undulating. The area was placed under British protection on Sept. 30, 1885, to prevent further Boer encroachment and has since remained a British protectorate. The form of government is similar to that of Basutoland.

Most of the inhabitants are Bantu, but there were 2,325 Europeans in 1946, a few of them farmers. The country is essentially pastoral, with cattle raising and dairy farming the chief industries. Gold is mined in the Tati district near Francistown. There is also some mining of silver and copper. Timber is produced for use as fuel and pit props.

SWAZILAND—Status: Protectorate.

Capital: Mbabane (population 1,600).

Resident Commissioner: B. A. Marwick.

Agricultural products: cattle, hides and skins, butter, tobacco, corn, millet.

Minerals: asbestos, tin, gold.

Swaziland lies at the southeastern corner of the Transvaal. It is largely hilly, with an average elevation of 4,000 feet in the west. It came under the protection of the Transvaal Republic in 1894 but was made a British protectorate in 1906 under the High Commissioner for South Africa.

The natives are mostly Swazi; there were 3,204 Europeans in 1946, mostly farmers. Grazing is the principal native occupation; there is excellent pasture in the high land to the west. Tropical and subtropical crops are raised in the lower areas. Tin is mined near Mbabane.

EAST AFRICA HIGH COMMISSION

The East Africa High Commission, comprising the Governors of Kenya, Tangan-

yika and Uganda, administers the public utilities and other central services of those territories, and has power to legislate with respect thereto with the advice and consent of a Central Legislative Assembly. The governments of the three areas are otherwise independent of one another.

KENYA—Status: Colony and protectorate.

Capital: Nairobi (pop. 1948: 118,976).

Governor: Sir Evelyn Baring.

Foreign trade (1956): domestic exports, 25% to Britain; imports, 51% from Britain. Chief exports: coffee (47%), tea (9%), sisal (7%).

Agricultural products (exports 1956): coffee, tea, sisal.

Minerals: gold, sodium carbonate, silver, salt.

Forest products: wattle bark extract, timber.

Kenya extends along the Indian Ocean between Ethiopia and Tanganyika Territory and westward to Lake Victoria and Uganda. Formerly known as the East Africa Protectorate, it was held under a concession from the Sultan of Zanzibar by the Imperial British East Africa Company from 1888 to 1905. It became a Crown colony in 1920, the coastal strip leased from the Sultan becoming a protectorate.

The colony is predominantly agricultural, and a large area is cultivated by Europeans. Altitude ranges from sea level to more than 9,000 ft.; hence, the cultivation of tropical, subtropical and temperate crops is possible.

Kenya has been plagued since 1952 by serious outbreaks of native terrorism inspired by the anti-white Mau Mau secret society, which have taxed strengthened security forces, including British regular army units.

TANGANYIKA TERRITORY—Status: U. N. trust territory.

Capital: Dar es Salaam (pop. 1952: 99,140).

Governor: Sir Edward F. Twining.

Foreign trade (1956): domestic exports, 31% to Britain; imports, 41% from Britain. Chief exports: sisal (24%), coffee (21%), cotton (17%), diamonds.

Agricultural products: sisal, coffee, cotton, peanuts, sugar cane, tea.

Minerals: gold, diamonds.

Forest products: gum arabic and copal, beeswax, timber.

Tanganyika Territory, with the Belgian Ruanda and Urundi, constituted German East Africa from 1884 until 1919. It was administered under League of Nations mandate by Britain until 1946, when it was placed under United Nations trusteeship, with Great Britain as the administering power.

Tanganyika's narrow coastal plain is bordered on the west by the precipitous

eastern side of the Central African plateau. Mount Kilimanjaro (19,565 ft.) is the highest point on the African continent. The territory also includes adjacent islands in the Indian Ocean.

The territory is sparsely populated; two-thirds of it is uninhabited. It is the world's largest producer of sisal hemp.

UGANDA—Status: Protectorate.

Capital: Entebbe (pop. 1948: 7,942).

Governor: Sir Frederick Crawford.

Foreign trade (1956): exports, 28% to India; imports, 30% from Britain. Chief exports: cotton, coffee.

Agricultural products: cotton, coffee, sugar cane, rubber, tea, sisal.

Minerals: gold, tin.

Uganda lies immediately south of Anglo-Egyptian Sudan and west of Kenya, along the northwest shore of Lake Victoria. The surface is extremely diversified, with lofty plateaus, snow-capped peaks, swamps, forests and arid areas. A British protectorate over the area was proclaimed in 1894. A large measure of home rule is given the native states, notably Buganda, whose *kabaka* (king) is assisted by a ministry and native parliament.

Agriculture, including livestock, is the basis of the economy. Cotton is raised, principally by natives, and coffee, tea and rubber are grown on large plantations. Most natives possess large herds of cattle and sheep.

GAMBIA—Status: Colony and protectorate.

Capital: Bathurst (population 19,602).

Governor: Sir Percy Wyn Harris.

Foreign trade. Chief export: peanuts (90%).

Agricultural products: peanuts, hides and skins, millet, rice, palm kernels.

Gambia, smallest of the British West African dependencies, is a stretch of land 200 miles long on both sides of the lower Gambia River, surrounded on all land sides by French West Africa and fronting on the Atlantic Ocean. During the 17th century it was settled by various companies of English merchants; slavery was the chief source of revenue until it was abolished in 1807. Gambia became a Crown colony in 1843. Except for the island of St. Mary, on which the capital stands, the area is administered as a protectorate.

The inhabitants, mostly Negroes or Negroids, are predominantly Mohammedan. The principal economic activity is the cultivation of peanuts. Internal transportation is by steamer and launch.

Ghana

(Member of Commonwealth of Nations)

Area: 91,843 square miles.

Population (est. 1956): 4,691,000 (almost entirely African).

Density per square mile: 51.1.

Ruler: Queen Elizabeth II.

Governor General: Earl of Listowel.

Prime Minister: Kwame Nkrumah.

Principal cities (census 1948): Accra, 135,926 (capital); Kumasi, 59,420 (rail center); Sekondi-Takoradi, 44,557 (rail terminus and port).

Monetary unit: Gold Coast pound.

Languages: Native tongues (Twi, Fanti, Ga), English.

Religions: Pagan, Mohammedan, Christian.

HISTORY AND GOVERNMENT (see article in *World Politics* section).

ECONOMIC CONDITIONS. The mainstay of the economy is the cultivation of cacao, in the production of which Ghana leads the rest of the world. Secondary export crops include palm kernels, copra, kola nuts, coffee, and rubber.

Chief exports in 1956 were cacao (59%), wood and lumber (11%), diamonds (9%), gold (9%) and manganese ore (8%). Chief customers in 1955 were Britain (41%), the U. S. (18%) and the Netherlands (11%); leading suppliers, Britain (47%), Japan (10%), and the Netherlands (8%).

Mineral resources are abundant. Most important is gold, mined at Tarkwa, Bibiani and, Obuasi. Others include diamonds, manganese ore, and bauxite. Forest resources are extensive and large amounts of hardwoods, notably mahogany, are exported from the forest zone of the interior.

The coastal belt of the new nation, extending about 270 mi. along the Gulf of Guinea, is sandy, marshy and generally exposed. Behind it is a gradually widening grass strip. The forested plateau region to the north is broken by ridges and hills.

KENYA (See **EAST AFRICA HIGH COMMISSION**)

MAURITIUS—Status: Colony.

Capital: Port Louis (pop. 1954: 74,950).

Governor: Sir Robert Scott.

Foreign trade. Chief export: sugar (96%).

Agricultural products: sugar, tea, tobacco, copra.

Mauritius is a mountainous island of volcanic origin in the Indian Ocean, about 500 miles east of Madagascar. It was seized in 1810 from the French, who had settled it in 1715, and was formally ceded to Great Britain by the Treaty of Paris in 1814.

With over 700 persons per square mile, the island is one of the most densely populated regions in the world. The population has a large white element, chiefly French and British, but British Indians are predominant. There are many half-castes.

NIGERIA, FEDERATION OF—Status: Colony and protectorate.

Governor general: Sir James Robertson.

Principal cities (census 1952-53): Ibadan, 459,196 (native metropolis); Lagos, 267,407 (capital); Ogbomosho, 139,535 (native city); Kano, 130,173 (textiles, leather goods, cattle).

Monetary unit: Nigerian pound.

Languages: Native tongues, Arabic, English.

Religions: Mohammedan, Pagan, Christian.

Nigeria, with an area twice that of California, is situated on the Gulf of Guinea in West Africa. Between 1879 and 1914 private colonial developments by the British, with reorganizations of the Crown's interest in the region, resulted in the formation of Nigeria as it exists today. During World War I, native troops of the West African frontier force joined with French forces to defeat the German garrison in the Cameroons. The Cameroons, a narrow strip along Nigeria's eastern border, became a League mandate after World War I, divided between France and Britain. Today the British Cameroons, a U. N. trust territory, is attached to Nigeria for administrative purposes.

ECONOMIC CONDITIONS. Among the leading export crops are cacao, peanuts, palm kernels, palm oil, and rubber. Hides and skins are also important export items. Aside from small native industry, there is no manufacturing.

Chief exports in 1956 were peanuts (21%), cacao (18%), palm kernels (15%), and palm oil (9%). Leading customers were Britain (63%), the Netherlands (10%), and the U. S. (9%); leading suppliers, Britain (45%), Japan (13%), and western Germany (8%).

Nigeria is a leading tin producer from mines on the Bauchi plateau. Other minerals are coal, gold, lead, silver, and tungsten. Over half the area is forested. Mahogany is the main timber export.

FEDERATION OF RHODESIA AND NYASALAND

(For full discussion of the Federation, see *World Politics* section.)

Governor General: Earl of Dalhousie.

Prime Minister: Sir Roy Welensky.

Foreign trade (1956): exports, 58% to Britain, 10% to Union of South Africa; imports, 41% from Britain, 34% from Union of South Africa. Chief exports: copper (38%), tobacco (15%), asbestos (4%).

NORTHERN RHODESIA—Status: Protectorate.

Capital: Lusaka (pop. 1954: 64,500).

Governor: Sir Arthur Benson.

Agricultural products: tobacco, maize, wheat.

Minerals: copper, cobalt, vanadium, lead, zinc.

NYASALAND—Status: Protectorate.
Capital: Zomba (pop. 1953: 5,000).
Governor: Sir Robert Armitage.
Agricultural products: tobacco, tea, cotton.

SOUTHERN RHODESIA—Status: Self-governing colony.

Capital: Salisbury (pop. 1953: 90,000).
Governor: Vice-Adm. Sir Peveril William-Powlett.

Prime Minister: R. S. Garfield Todd.
Agricultural products: tobacco, corn, peanuts, meat, hides, and skins.
Minerals: asbestos, gold, coal, chrome ore.

ST. HELENA—Status: Colony.
Capital: Jamestown (population 1,547).
Governor: Sir James Harford.
Foreign trade (1956): exports, 71% to Britain; imports, 44% from Britain. Chief export: happen products (82%).
Agricultural products: flax, potatoes.

St. Helena is a volcanic island (47 sq. mi.) in the South Atlantic about 1,200 miles from the west coast of Africa. It is famous as the place of exile of Napoleon (1815–21). It was taken for Britain in 1651 by the British East India Company and became a Crown colony in 1833. Attached to it are Ascension Island (34 sq. mi.), 100 miles northwest, and the Tristan da Cunha group (45 sq. mi.), about 1,500 miles southwest. Most of the inhabitants are of mixed European, East Indian and African descent.

SEYCHELLES—Status: Colony.
Capital: Victoria (population 10,000).
Governor: Sir William Addis.
Foreign trade (1956): exports, 69% to India; imports, 38% from Britain. Chief export: copra (69%).
Agricultural products: cinnamon, patchouli oil, coconuts, maize, sugar cane.

This archipelago of about 92 islands in the Indian Ocean was seized from France by British troops in 1794 and was ceded to Great Britain by the Treaty of Paris in 1814. The principal island is Mahé (55 sq. mi.), about 600 miles northeast of Madagascar.

SIERRA LEONE—Status: Colony and protectorate.

Capital: Freetown (population: 64,576).
Governor: Sir Maurice Dorman.

Chief Minister: M. A. S. Margai.
Foreign trade (1956): exports, 63% to Britain; imports, 54% from Britain. Chief exports: diamonds (41%), iron ore (30%), palm kernels (11%).

Agricultural products: palm kernels, palm oil, rice, millet, cassava, rubber.
Minerals: iron ore, diamonds, gold.
Forest products: palm kernels, cassava.

Sierra Leone lies on Africa's west coast between French Guinea and Liberia. It is well-watered hilly country but has a low

swampy coastland with an extremely unhealthy climate. The coastal area (colony proper) was ceded to English settlers in 1788 as a home for Negroes discharged from the British armed forces and also for runaway slaves who had found asylum in London. The British protectorate over the hinterland was proclaimed in 1896. It was not until 1928 that slavery was totally abolished in the protectorate. Under the 1951 Constitution as amended the House of Representatives has 57 members, of whom 51 are elected directly or indirectly.

Freetown is the best harbor on the west coast. Iron ore (60% metal content) from deposits at Marampa is shipped from Pepel, northeast of Freetown.

SOMALILAND—Status: Protectorate.
Administrative center: Hargeisa (population, about 20,000 in hot season and 40,000 in cold season).

Governor: Sir Theodore Pike.
Chief export: hides and skins.
Agricultural products: cattle, hides and skins, grains.
Forest products: gums and resins.

British Somaliland extends along the Gulf of Aden for about 400 miles and inland for 80 to 220 miles. The interior is an elevated plateau falling in steep escarpments to the coastal plain. It came under Egyptian influence in 1875, but during the years 1884–86 treaties guaranteeing British protection were signed with the various Somali chiefs. Italian troops occupied the protectorate in 1940, but it was retaken by British troops in 1941. Both executive and legislative power is exercised by the Governor.

Most of the inhabitants are nomadic Somalis of Mohammedan faith. Their principal activity is stock raising.

SOUTH-WEST AFRICA (See **UNION OF SOUTH AFRICA**)

SWAZILAND (See **BRITISH SOUTH AFRICAN TERRITORIES**).

TANGANYIKA & UGANDA (See **EAST AFRICA HIGH COMMISSION**)

Union of South Africa

(Member of Commonwealth of Nations)

Area: 472,733 square miles.*

Population (est. June 30, 1957): 14,167,000* (European, 20.9%; Bantu, 66.9%; mixed, 9.2%; Asiatic, 3.0%).

Density per square mile: 30.0.*

Ruler: Queen Elizabeth II.

Governor General: Ernest G. Jansen.

Prime Minister: Hendrik Frensch Verwoerd.

Principal cities (est. 1956): Johannesburg, 1,006,500 (gold, industrial center); Capetown, 687,900 (seat of legislature, sea-

port); Durban, 591,300 (seaport); Pretoria, 327,200 (seat of administration); Port Elizabeth, 231,400 (seaport).

Monetary unit: South African pound (RSA).

Languages: English, Afrikaans.

Religions (European pop., 1946): Dutch Reformed Churches, 55%; Anglican Church, 19%; Methodist, 6%; Presbyterian, 5%; Roman Catholic, 5%; others 10%.

* Excluding South-West Africa.

HISTORY AND GOVERNMENT. (See *World Politics* section).

ECONOMIC CONDITIONS. South Africa is predominantly a pastoral country, with less than 15 per cent of its area considered arable. Sheep and cattle raising are the principal occupations, especially in the high veldt. In 1954 there were 37,141,579 sheep, 11,604,249 cattle, and 491,140 hogs.

Climate and differences in terrain combine to give a great variety of agricultural products. The staple crop is maize, grown widely. In southwest Cape Province, products of the Mediterranean type predominate, while in the coastal belt of Natal and in northern Transvaal subtropical crops, especially sugar, are grown.

Food, beverages and tobacco, and metal products are leading products. As a result of the need for armaments a wartime iron and steel industry was established, and cement, chemical, textile, and auto assembly plants were expanded.

Chief exports in 1956 (besides gold) were wool (15%) and diamonds (8%). Main customers (1956) were Britain (26%), Rhodesia and Nyasaland (13%), and the United States (7%); leading suppliers, Britain (32%), the United States (20%), and Germany (6%). Principal imports included textiles, farm and industrial machinery, motor vehicles and petroleum products.

NATURAL FEATURES AND RESOURCES. The Union has a high interior plateau, or veldt, nearly half of which averages 4,000 feet in elevation. There are no important mountain ranges, although the Great Escarpment, separating the veldt from the coastal plain, rises to over 10,000 feet. The principal river is the Orange, rising in Basutoland and flowing westward for 1,300 miles through the Union's center to the Atlantic.

Extensive mineral resources account for the economic prosperity. The Union is the world's leading gold producer. Diamond production is now surpassed in importance by coal. Uranium, gypsum, tin, and tungsten also are mined.

The whaling industry, centered at Durban on the east coast, produces considerable amounts of whale oil. The Union has extensive fishery resources along the 1,500 miles of coast line.

SOUTH-WEST AFRICA—Status: Mandate.

Administrator: Daniel du P. Viljoen.

Capital: Windhoek (population 23,359).

Agricultural products: hides and skins, butter, corn, wheat.

Minerals: diamonds, vanadium concentrates, tungsten, lead, tin, iron ore, copper.

The mandate, bounded on the north by Angola, and on the east by Bechuanaland and the Union of South Africa, was discovered by the Portuguese explorer Diaz in the late 15th century. It is for the most part a portion of the high plateau of South Africa with a general elevation of from 3,000 to 4,000 feet. It became a German colony in 1884 but was conquered by South African forces in 1915, becoming a Union mandate by the terms of the Treaty of Versailles. The Union of South Africa's application for incorporation of the territory into the Union was rejected by the United Nations assembly on Dec. 14, 1946, and the Union was invited to prepare a trusteeship agreement instead. By a law passed in April, 1949, however, the territory was brought into much closer association with the Union—including representation in the Union Parliament.

The country in general is better suited to grazing than to the raising of crops because of the light rainfall. The karakul sheep industry is particularly well-developed.

ZANZIBAR—Status: Protectorate.

Capital: Zanzibar (population 60,000).

Sultan: Seyyid Sir Khalifa bin Harub.

British Resident: Sir Henry Potter.

Foreign trade (1955): exports, 47% to Indonesia; imports, 28% from Britain. Chief export: cloves (80%).

Agricultural products: cloves, clove oil, coconut oil, copra.

The protectorate consists principally of the islands of Zanzibar (640 sq. mi.) and Pemba (380 sq. mi.), just off the East African coast. Before 1890, the sultanate's territory also included a large area on the mainland, now comprising Italian Somaliland, Kenya and Tanganyika Territory. It was proclaimed a British protectorate Nov. 4, 1890. The British Resident administers the government, but the Sultan still retains considerable authority.

The principal industry is the production of cloves—about 80 per cent of the world supply.

WESTERN HEMISPHERE

BAHAMAS—Status: Colony.

Capital: Nassau (population 36,246).

Governor: Sir Oswald Arthur.

Foreign trade (1956): exports (57% to the U. S.); imports (53% from the U. S.). Chief exports: lumber (26%), crawfish, pit props.

Agricultural products: tomatoes, citrus fruit, sisal.

Sea products: sponges, lobsters, crawfish.

The Bahamas are an archipelago of about 3,000 islands, islets (cays) and rocks, east of Florida and north of Cuba, extending from N.W. to S.E. for about 800 miles. Only about 20 of the islands are inhabited; the most important is New Providence (20 sq. mi.) on which Nassau is located. The islands were reached by Columbus in Oct., 1492, and were a favorite pirate resort in the early 18th century. They have been a Crown colony since 1717. The Constitution provides for a nominated Legislative Council and a popularly elected Assembly. The Governor is advised by an Executive Council.

Over 85 per cent of the population is Negro. The tourist trade is of paramount importance, especially at Nassau.

BARBADOS—Status: Colony.

Capital: Bridgetown (population 13,345).

Governor: Sir Robert Arundell.

Prime Minister: Sir Grantley Adams.

Foreign trade (1956): exports (53% to Britain); imports (35% from Britain). **Chief exports:** sugar (67%), molasses (12%), rum.

Agricultural products: sugar, cotton, maize, cassava.

Manufactures: rum, molasses.

Barbados, an island east of the Windward group in the West Indies, has been a British possession since 1627; it is believed to have been first visited by the Portuguese. The colony has a nominated Legislative Council and a popularly elected Assembly of 24 members. Under a ministerial system of government inaugurated Feb. 1, 1954, the Prime Minister and 4 other members of the Executive Committee (all 5 being members of the Assembly) exercise executive responsibility for most of the departments of government, except defense and foreign affairs.

The island is very densely populated (about 1,400 per sq. mi.). About 77 per cent of the inhabitants are Negro, 5 per cent white and the remainder of mixed blood. Approximately 70 per cent of the total area is cultivated and half of this is devoted to sugar, which is the staple product; there are sugar and molasses plants and several rum distilleries.

BERMUDAS—Status: Colony.

Capital: Hamilton (population 3,500).

Governor: Lt. Gen. Sir John Woodall.

Foreign trade (1956): exports, \$511,581; re-exports, \$4,154,343; imports, \$13,159,853 (53% from the U. S.). **Chief domestic exports:** pharmaceuticals (42%), concentrated essences.

Agricultural products: lily bulbs, potatoes, vegetables, arrowroot.

The Bermudas comprise an archipelago of about 360 small islands, 580 miles east

of North Carolina. The largest is (Great) Bermuda or Main Island. Discovered by Juan Bermudez, a shipwrecked Spaniard, early in the 16th century, the islands were settled in 1612 by an offshoot of the Virginia Company and became a Crown colony in 1684. The Governor is assisted by nominated Executive and Legislative Councils and a popularly elected Assembly of 36 members. In 1940, sites on the islands were leased for 99 years to the U. S. for air and navy bases. Bermuda is also the headquarters of the West Indies and Atlantic squadron of the Royal Navy. The most important factor in the colony's economy is the tourist trade. The arable land is devoted to horticulture rather than agriculture. The colony is heavily dependent on food imports.

BRITISH GUIANA—Status: Colony.

Capital: Georgetown (population 97,821).

Governor: Sir Patrick Muir.

Foreign trade (1956): exports (40% to Canada, 32% to Britain); imports (45% from Britain). **Chief exports:** sugar (44%), bauxite (31%), rice (10%).

Agricultural products: sugar, rice, copra, coffee, fruit.

Minerals: bauxite, gold, diamonds.

Forest products: balata, timber.

The only British possession in South America proper, British Guiana is on the northeastern coast between Venezuela and Surinam (Dutch Guiana). Settled by the Dutch in the 17th century, it was occupied by the British in 1796 and ceded to them at the end of the Napoleonic wars. Behind the low plain which contains the farm area is a higher area containing forest and mineral resources. A new Constitution inaugurated Apr. 1, 1953, provided for a bicameral Legislature, with a lower house largely elected under universal adult suffrage, and an Executive Council with a majority of ministers drawn from the lower house on whose advice the Crown-appointed Governor was bound to act. Following charges of Communist infiltration into the government, British military and naval reinforcements were dispatched to the colony; and on Oct. 9, 1953, the Constitution was suspended.

Forest resources, mostly unexploited, have been estimated at about 40,000,000,000 cu. ft. of merchantable timber.

BRITISH HONDURAS—Status: Colony.

Capital: Belize (population 31,221).

Governor: Sir Colin Thornley.

Chief exports (1956): mahogany (24%), pine.

Agricultural products: bananas, sugar cane, citrus fruits.

Forest products: cedar lumber and logs, mahogany lumber, logs, pine lumber, chicle.

British Honduras is bounded on the north by Mexico and on the west and south

by Guatemala. It was settled in 1662 by woodcutters from Jamaica. An irregular form of local government continued until 1871, when it became a Crown colony; it was separated from Jamaica in 1884. The Governor is assisted by an Executive Council and by a partially elected Legislative Assembly.

The colony's economy is dependent upon timber and other forest exports. Agriculture has never been adequately developed.

Canada

(Member of Commonwealth of Nations)

Area (land only): 3,619,616 square miles.*

Population (1957): 16,589,000 (1951: British 48%; French 31%; German 4%; Ukrainian 3%; others 14%).

Density per square mile: 4.5.

Ruler: Queen Elizabeth II.

Governor General: Vincent Massey.

Prime Minister: John Diefenbaker

Principal cities (census 1956): Montreal, 1,094,448 (seaport); Toronto, 662,096 (manufacturing center); Vancouver, 361,952 (Pacific seaport); Winnipeg, 256,683 (grain); Hamilton, 237,749 (iron and steel); Edmonton, 224,003 (petroleum); Ottawa, 215,113 (capital); Calgary, 177,861 (farming); Quebec, 166,996 (seaport); Windsor, 120,525 (automobiles).

Monetary unit: Canadian dollar.

Religions (census 1951): Roman Catholic 43%; United Church 20%; Anglican 15%; Presbyterian 6%; Baptist 4%; others 12%.

* Total area, including water: 3,845,774 square miles.

HISTORY. The Norse explorer Leif Ericsson probably reached the shores of Canada (Labrador or Nova Scotia) in A.D. 1000, but the history of the white man in the country actually began in 1497, when John Cabot, an Italian in the service of Henry VII of England, reached the shore of Newfoundland or Nova Scotia. Canada was taken for France in 1534 by Jacques Cartier. The actual settlement of New France, as it was then called, began in 1604 at Port Royal in what is now Nova Scotia; in 1608 Quebec was founded. France's colonization efforts were not very successful, but French explorers by the end of the seventeenth century had penetrated beyond the Great Lakes to the western prairies and south along the Mississippi to the Gulf of Mexico. Meanwhile, the English Hudson's Bay Company had been established in 1670. Because of the valuable fisheries and fur trade, a conflict developed between the French and English; in 1713, Newfoundland, Hudson Bay, and Nova Scotia (Acadia) were lost to England.

During the Seven Years' War (1756-63), England extended its conquest, and the British general, Wolfe, won his famous victory over Montcalm outside Quebec (Sept. 13, 1759). The Treaty of Paris (1763) put Canada under English control.

PROVINCES AND TERRITORIES

Province	Land area, sq. mi.	Population (Census 1956)
Alberta	248,800	1,123,116
British Columbia	359,279	1,398,464
Manitoba	219,723	850,040
New Brunswick	27,473	554,616
Newfoundland	152,734	415,074
Nova Scotia	20,743	694,717
Ontario	363,282	5,404,933
Prince Edward Island	2,184	99,285
Quebec	523,860	4,628,378
Saskatchewan	237,975	880,665
Territories		
Northwest Territories	1,258,217	19,313
Yukon	205,346	12,190

Provinces	Capital	Premier 1958
Alberta	Edmonton	Ernest C. Manning ¹
British Columbia	Victoria	William Bennett ¹
Manitoba	Winnipeg	Duff Roblin ³
New Brunswick	Fredericton	Hugh J. Flemming ³
Newfoundland	St. John's	Joseph Smallwood ⁴
Nova Scotia	Halifax	Robert L. Stanfield ³
Ontario	Toronto	Leslie Frost ³
Prince Edward Island	Charlottetown	A. W. Matheson ³
Quebec	Quebec	Maurice Duplessis ⁵
Saskatchewan	Regina	T. C. Douglas ⁶
Territories		
Northwest Territories	Ottawa	R. G. Robertson ³
Yukon	Whitehorse	F. H. Collins ³

¹ Social Credit; ² Liberal-Progressive; ³ Progressive; ⁴ Conservative; ⁵ Liberal; ⁶ Union Nationale; ⁷ Cooperative Commonwealth Federation.

* Commissioner.

At that time the population of Canada was almost entirely French, but in the next few decades thousands of British colonists emigrated to Canada from the British Isles and from the American colonies. In 1849 the right of Canada to self-government was recognized. By the British North America Act of 1867, the Dominion of Canada was created through the confederation of Upper and Lower Canada, Nova Scotia, and New Brunswick. Prince Edward Island joined the Dominion in 1873. In 1869 Canada had purchased from the Hudson's Bay Company the vast middle west (Rupert's Land) from which the provinces of Manitoba (1870), Alberta, and Saskatchewan (1905) were later formed. In 1871 British Columbia joined the Dominion. The country was linked from coast to coast in 1885 by the Canadian Pacific Railway.

During the formative years between 1867 and 1896, the Conservative party led by Sir John A. Macdonald governed the country, except during the years 1873-78. In 1896 the Liberal party took over and under Sir Wilfrid Laurier, an eminent French Canadian, ruled until 1911. In World War I, more than 500,000 Canadian soldiers fought for the Allied cause. After the Treaty of Versailles, Canada, a full-fledged nation, was admitted to the League of Nations and appointed its own representatives in foreign countries. By the Statute of Westminster (1931) the British Dominions, including Canada, were formally declared to be partner nations with Britain, "equal in status, in no way subordinate to each other," and bound together only by allegiance to a common Crown.

Newfoundland became Canada's tenth province on March 31, 1949, following a plebiscite held July 22, 1948, in which the people voted by a narrow margin to unite with Canada.

GOVERNMENT. Canada, a self-governing member of the Commonwealth of Nations, is a federal union of ten provinces whose powers are laid down in the British North America Act of 1867. The executive powers nominally rest in the hands of the Governor General, who represents the Queen and is appointed by her upon the recommendation of the Canadian government.

Actually, the Governor General acts only with the advice of the Canadian Prime Minister and the members of the Cabinet, who at the same time sit in the federal Parliament. The Parliament has two houses: a Senate numbering 102 members appointed for life, and a House of Commons numbering 265 members apportioned

according to provincial population. Elections are held at least every five years or whenever the party in power is voted down in the House of Commons or considers it expedient to appeal to the people. The Prime Minister is the leader of the majority party in the House of Commons. Laws must be passed by both houses of Parliament and signed by the Governor General in the Queen's name.

The ten provincial governments are nominally headed by Lieutenant Governors appointed by the federal government, but the executive power in each actually is vested in a Cabinet headed by a Prime Minister, who is leader of the majority party. In nine of the ten provinces the legislature is composed of a one-house assembly elected by the people for four years. In Quebec there is a second chamber, the Legislative Council, composed of nominees of the Provincial Government.

Judicial System. The judicial system consists of a Supreme Court in Ottawa (established in 1875), with appellate jurisdiction, and a Supreme Court in each province as well as county courts with limited jurisdiction in most of the provinces. The Governor General in Council appoints the judges of these courts.

ECONOMIC CONDITIONS. *Agriculture.* Agriculture, including horticulture, fruit-growing, and the raising of stock and poultry, is the largest single industry. Canada is one of the world's greatest wheat-exporting countries; production is concentrated in Manitoba, Saskatchewan, and Alberta.

Stock raising and dairy farming have grown greatly since 1920. Ontario and Quebec are the most important dairying prov-

Canadian Governors General and Prime Ministers Since 1867

Term of office	Governor General	Term	Prime Minister	Party
1867-1869	Viscount Monck	1867-1873	Sir John A. Macdonald	Conservative
1869-1872	Baron Lisgar	1873-1878	Alexander Mackenzie	Liberal
1872-1878	Earl of Dufferin	1878-1891	Sir John A. Macdonald	Conservative
1878-1883	Marquess of Lorne	1891-1892	Sir John J. Abbot	Conservative
1883-1888	Marquess of Lansdowne	1892-1894	Sir John S. D. Thompson	Conservative
1888-1893	Baron Stanley	1894-1896	Sir Mackenzie Bowell	Conservative
1893-1898	Earl of Aberdeen	1896(2 mos)	Sir Charles Tupper	Conservative
1898-1904	Earl of Minto	1896-1911	Sir Wilfrid Laurier	Liberal
1904-1911	Earl Grey	1911-1917	Sir Robert L. Borden	Conservative
1911-1916	Duke of Connaught	1917-1920	Sir Robert L. Borden	Unionist
1916-1921	Duke of Devonshire	1920-1921	Arthur Meighen	National, Conservative
1921-1926	Viscount Byng			
1926-1931	Viscount Willingdon	1921-1926	W. L. Mackenzie King	Liberal
1931-1935	Earl of Bessborough	1926(3 mos)	Arthur Meighen	Conservative
1935-1940	Baron Tweedsmuir	1926-1930	W. L. Mackenzie King	Liberal
1940-1946	Earl of Athlone	1930-1935	Richard B. Bennett	Conservative
1946-1952	Viscount Alexander	1935-1948	W. L. Mackenzie King	Liberal
1952-	Vincent Massey	1948-1957	Louis S. St. Laurent	Liberal
		1957-	John Diefenbaker	Conservative

inces. On June 1, 1957, Canada had 11,296,-000 cattle, 4,857,000 hogs, 1,661,000 sheep, and 730,000 horses.

Industry. Canadian manufactures rely mainly on domestic raw materials; growing industries which depend largely on materials imported in a raw or semi-finished state include the manufacture of automobiles, sugar, and rubber goods as well as the iron and steel industry in Nova Scotia, Quebec, and Ontario. The latter two provinces account for more than 80 per cent of all manufactures. The abundance of cheap water power is one of the chief factors in the growth of Canadian industry. In 1955 there were 38,182 plants which employed 1,298,461 persons. The most important industries by value of output were pulp and paper, nonferrous-metals smelting and refining, petroleum products, meatpacking, motor vehicles, and sawmill products.

Trade. Canada is one of the great trading nations of the world. The bulk of its foreign commerce is in raw or semi-finished products.

In 1956, Canada's principal customers were the United States (59%), Britain (17%), western Germany (2.9%), Japan (2.7%), and Union of South Africa (1.4%). Leading suppliers were the United States (73%), Britain (8.5%), Venezuela (3.6%), western Germany (1.6%), and Japan (1.1%). Leading exports were newsprint (15%), wheat (11%), planks and boards (6.8%), wood pulp (6.3%), and aluminum and products (5.0%). Leading imports in 1955 were machinery (non-farm) (9%), automobile parts (5%), crude petroleum (5%), farm implements and machinery (4%), and petroleum products (3%).

Communications. Because Canada's exports are to a large extent bulky raw materials, cheap water transportation is essential. The country's system of canals, especially those connecting the Great Lakes, forms an integral part of the inland communications system.

NATURAL FEATURES AND RESOURCES. Covering most of the northern part of the North American continent and with an area larger than that of the United States, Canada's topography is extremely diversified. The northeastern region, including most of Quebec, northern Ontario and Manitoba, and the Northwest Territories, with Hudson Bay in the center, is an important source of minerals, wood pulp, and water power. In the east the mountainous maritime provinces have an irregular coast line on the Gulf of St. Lawrence and the Atlantic. The St. Lawrence plain, covering most of southern Quebec and Ontario, and the interior continental plain, covering southern Manitoba and Saskatchewan and most of Alberta, are the

principal cultivable areas. They are separated by a forested plateau rising from Lakes Superior and Huron. Westward toward the Pacific, most of British Columbia, Yukon, and part of western Alberta are covered by parallel mountain ranges including the Rockies. The Pacific border of the coast range is ragged with fiords and channels. The highest point in Canada is Mt. Logan, 19,850 ft., located in the Yukon.

Canada has an abundance of large and small lakes. In addition to the Great Lakes on the United States border, there are nine others which are more than 100 miles long and 35 which are more than 50 miles long.

The two principal river systems are the Mackenzie and the St. Lawrence. The St. Lawrence with its tributaries is navigable for over 1,900 miles and is the commercial artery of eastern Canada.

As most of the Canadian rivers have waterfalls on their courses they are of considerable importance as sources of power.

Minerals. Canada's mineral resources are both rich and varied. Mining production in 1956 was valued at \$2,067,699,096. Metals come mainly from two widely separated regions, the mountain ranges of the Pacific coast and the province of Ontario. Copper ore also exists in Quebec, Manitoba, and Newfoundland. Production of petroleum centers in Alberta. There are important deposits of uranium in the Northwest Territories.

Forests and Fisheries. The total area of land covered by forests is estimated at 1,300,000 square miles, of which only 435,000 are productive and accessible. The manufacture of pulp and paper is one of the leading industries.

Fishing, Canada's oldest industry, is carried on along the Atlantic and Pacific coasts and on the inland lakes.

FALKLAND ISLANDS AND DEPENDENCIES—Status: Crown Colony.

Governor: Edwin P. Arrowsmith.

Capital: Stanley (population 1,135).

This sparsely inhabited Crown colony consists of a group of islands in the south Atlantic about 250 miles east of the South American mainland. Dependencies include all islands and Antarctic territory between 20° and 50° w. long., south of 50° s. lat., and between 50° and 80° w. long., south of 58° s. lat. The chief industry is sheep raising, and apart from the production of wool, hides and skins, and tallow, there are no known resources. The whaling industry is carried on from South Georgia Island.

The islands were discovered by John Davis in 1592.

JAMAICA AND DEPENDENCIES—Status: Colony.

Capital: Kingston (population 145,000).

Governor: Sir Kenneth Blackburne.

Chief Minister: Norman W. Manley.

Foreign trade (1956)*: exports (49% to Britain); imports (37% from Britain). **Chief exports:** sugar and preparations (34%), bananas (14%), bauxite (12%).

Agricultural products: sugar, rum, bananas, citrus fruits, ginger, coffee, pimento.

Mineral: bauxite.

* Excluding dependencies.

Jamaica, the largest island in the British West Indies (4,470 sq. mi.), is eighty miles south of the eastern end of Cuba. Its island dependencies include the Turks and Caicos Islands (about 600 mi. N.E.), Cayman Islands (about 300 mi. N.W.) and two uninhabited cays. It was discovered by Columbus in 1494 and remained in Spanish possession until 1655, when it was taken by the British. According to the Constitution of Nov. 20, 1944, as amended in 1953, the Governor is assisted by a House of Representatives; a Legislative Council (upper house); and an Executive Council of whom the Chief Minister is appointed by the Governor subject to approval of the House.

Sites were leased for 99 years to the United States in 1940 for naval and air bases.

The colony's economy depends on agriculture, and about 200,000 acres are under cultivation. Sugar took the place of bananas as the chief crop during World War II. Jamaica is virtually the sole source of pimento.

LEEWARD ISLANDS—Status: Group of colonies.

Seat of governor: St. John's (Antigua) (population 11,000).

Governor: Alexander T. Williams.

Chief export: sugar.

Agricultural products: sugar, cotton, coconuts, citrus fruits, tobacco.

The Leeward Islands, lying southeast of Puerto Rico, are a group of four colonies—Antigua (108 sq. mi.) and dependencies (63 sq. mi.); Virgin Islands (67 sq. mi.); St. Kitts (68 sq. mi.) and Nevis (50 sq. mi.), and dependency (34 sq. mi.); and Montserrat (33 sq. mi.). They have a common governor but their governments are otherwise separate.

In 1940, the United States acquired a 99-year lease on sites for a naval and air base on Antigua. The islands are agricultural.

TRINIDAD AND TOBAGO—Status: Colony.

Capital: Port of Spain (population 120,000).

Governor: Sir Edward Beetham.

Chief Minister: Eric Williams.

Foreign trade (1956): exports (35% to Britain); imports (35% from Britain).

Chief exports: crude petroleum and products (66%), sugar (8%), cacao (3%).

Agricultural products: raw sugar, cacao, coconuts, citrus fruit.

Manufactures: petroleum products
Minerals: crude petroleum, asphalt.

The islands of Trinidad and Tobago are sixteen and twenty-one miles, respectively, off Venezuela just north of the Orinoco delta. Both were discovered by Columbus in 1498, and remained Spanish possessions until 1797, when the British took them. They are administered by a Governor, assisted by an Executive Council and a Legislative Council, popularly elected. In 1941 the United States was granted 99-year leases on the islands for naval and air bases.

The soil is rich for the growing of tropical products; sugar and cacao are the principal crops. Trinidad is one of the leading oil producers of the Commonwealth, and the world's most notable source of asphalt, found in Pitch Lake, thirty-eight miles southeast of Port of Spain.

WEST INDIES FEDERATION: established Jan. 3, 1958, it includes Antigua, Barbados, Dominica, Grenada, Jamaica, Montserrat, Trinidad and Tobago, St. Lucia, St. Vincent, and St. Kitts-Nevis. It expects to attain Commonwealth status within five years. Prime Minister Herbert Adams was chosen April 18, 1958.

In the March, 1958, elections, Federal Labor (Socialist) party obtained twenty-three seats, Democratic Labor (Anti-Socialist) party twenty-one, Barbados National (pro-Socialist) one in the new West Indies Parliament.

WINDWARD ISLANDS—Status: Group of colonies.

Seat of governor: St. George's (Grenada) (population 5,775).

Governor: Sir Colville M. Deverell.

Agricultural products: arrowroot (St. Vincent), nutmeg (Grenada), mace (Grenada), cacao.

These islands, four in number, form the southern portion of the Lesser Antilles in the Caribbean; they extend approximately 250 miles from the French colony of Guadeloupe on the north to the British colony of Trinidad on the south. Their total area of about 820 square miles divides as follows: Dominica, 304; St. Lucia, 233; St. Vincent, 150; Grenada, 133. The four colonies are not federated and have no common legislature or laws, although they do have a common Governor.

Agriculture is the only industry. St. Vincent has a virtual monopoly on the world supply of arrowroot.

ASIA

ADEN—Status: Colony and Protectorate.

Governor: Sir William Luce.

Foreign trade: exports (16% to Britain); imports (30% from Kuwait).

Manufactures: crude petroleum refined.

COLOMBO PLAN

The Colombo Plan, started among Commonwealth countries of Southeast Asia in 1950, focuses attention on recipient rather than donor. Its objective is to improve living standards of economically underdeveloped countries by coordinating their approach to foreign economic aid. Substantial contributions have been made by the U. S., the U. K., Australia, New Zealand and the International Bank for Reconstruction and Development.

The British colony and protectorate of Aden is situated on the volcanic southern tip of the Arabian peninsula, along the Gulf of Aden. The colony (port) of Aden was annexed to Britain in 1839 and was part of the Bombay Presidency until 1932, when it became a separate province with the Chief Commissioner responsible to the Indian government. In 1937 it was transferred from Indian to Imperial control as a Crown colony. It is administered by a Governor and Commander in Chief aided by an Executive Council and a Legislative Council. The 20-odd Sultans who rule their respective territories in the protectorate are responsible to him.

Aden colony is essentially a transshipment point and bunkering station and is also the commercial center for the Yemen and the African coast opposite. Aden airport is a station on the Khartoum-Karachi air route. Agriculture is unimportant except for some coffee and tobacco, and except for the large petroleum refinery of the British Petroleum Co. Ltd. (formerly Anglo-Iranian Oil Co.), which went into operation in 1954, manufacturing activity is limited to salt, cigarettes, and dhows.

BAHREIN ISLANDS—Status: Protectorate and Sheikdom.

Capital: Manama (population 45,000).

Ruler: Sheik Sir Salman bin Hamad al Khalifah.

British Political Agent: C. A. Gault.

These islands form an archipelago off Arabia's east coast and are nominally an independent sheikdom, but are actually a protectorate of Great Britain, which is represented by a Political Agent. The islands are the center of the Persian Gulf pearl fisheries and the site of an airport on the London-Australia route. The concession for exploitation of petroleum deposits, discovered in 1932, is held by an affiliate of U. S.-owned interests. Output in 1956 was 11,013,702 barrels. Agriculture is of some importance. Most of the trade of the Saudi Arabian provinces of Nejd and Hasa pass through Bahrein.

BORNEO

COLONY OF NORTH BORNEO—Status:

Colony.

Capital: Jesselton (population 11,704).

Governor: Sir Evelyn Turnbull.

Foreign trade (1956)*: exports (23% to Britain); imports (24% from Britain). Chief exports: rubber (33%), timber (22%), copra (19%).

Agricultural products: rubber, rice, copra.

Forest products: timber, cutch, rattans.

* Excluding transit trade.

The Colony of North Borneo, constituting the extreme northern portion of the island of Borneo, consists largely of highlands and occasional open valleys and plateaus. The territory was a British protectorate administered under a royal charter by the British North Borneo Company from 1881 until July 15, 1946, when it assumed the status of a Crown colony. It was occupied by Japanese troops from 1942 until 1945. Labuan (pop. 9,000; area, 35 sq. mi.), a small island off the North Borneo coast, was transferred from the jurisdiction of the Straits Settlements to that of North Borneo in 1946.

The population is comprised largely of aboriginal tribesmen living on a very primitive level of culture and social organization. In 1951, 72.7% of the population was native, 22.3% Chinese; there were 1,213 Europeans. Mineral resources are believed to be considerable, but the colony's income is based on agricultural and jungle produce.

BRUNEI—Status: Protectorate.

Capital: Brunel (population 11,000).

Sultan: Omar Ali Saifuddin.

British Resident: J. O. Gilbert.

Foreign trade: Chief export: petroleum (99%).

Agricultural products: rice, rubber.

Mineral: petroleum.

Brunei lies on the northwestern coast of Borneo, entirely surrounded by Sarawak. It was placed under British protection in 1888, and in 1906 a treaty was concluded whereby the native Sultan yielded administration of the state to a British Resident. The Governor of Sarawak was appointed High Commissioner for Brunei in 1948. Japanese occupied Brunei in 1942-45.

Most of the inhabitants are Malays and Borneans; in 1955, 19% were Chinese and only 1.5% European. The bulk of the population lives in and around the capital situated on the Brunei River 9 miles from its mouth. The interior is largely forested and contains rich timber. All petroleum is exported to Sarawak for refining.

SARAWAK—Status: Colony.

Capital: Kuching (population 60,000).

Governor: Sir Anthony F. Abell.

Foreign trade. Chief exports: petroleum and products (73%), rubber (14%), pepper (5%).

Agricultural products: rubber, pepper, copra, rice.

Minerals: petroleum, gold, silver, coal.

Sarawak extends along the northwestern coast of Borneo for about 500 miles. In 1841 part of the present territory was granted by the Sultan of Brunei to Sir James Brooke. The state, enlarged by additional concessions made between 1861 and 1905, continued to be ruled by members of the Brooke family until the Japanese occupation in Dec. 1941. A British protectorate since 1888, Sarawak became a Crown colony July 15, 1946, through agreement between the British government and the then ruling Rajah, Sir Charles Vyner Brooke.

The colony is mountainous and well watered; inland communication is largely by water. Most of the inhabitants are Malays, Dyaks, and Chinese. The most important mineral is petroleum, which was discovered at Miri in 1909 and subsequently worked by Sarawak Oilfields, Ltd. There are also important forest resources.

Ceylon

(Member of Commonwealth of Nations)

Area: 25,332 square miles.

Population (est. July 1, 1956): 8,929,000 (1953: Sinhalese, 69%; Tamil, 21%; Moors, 6%; Burghers and Eurasians, .5%; Europeans [6,909] and others, 3.5%).

Density per square mile: 352.5.

Ruler: Queen Elizabeth II.

Governor General: Sir Oliver Goonetilleke.

Prime Minister: S.W.R.D. Bandaranaike.

Principal cities (census 1953): Colombo, 423,481 (capital); Dehiwala—Mt. Lavinia, 80,086 (suburb of Colombo); Jaffna, 77,218 (fibers, tobacco).

Monetary unit: Ceylonese rupee.

Languages: English, Sinhalese, Tamil.

Religious (est.): Buddhist, 61%; Hindu, 22%; Moslem, 7%; Christian (mainly Roman Catholic), 9%; others, 1%.

HISTORY AND GOVERNMENT. Known to the Greeks and Romans as Taprobane and to Mohammedan seamen as Serendib, Ceylon is reputed to have been invaded from India in 504 B.C. by Vijaya, the first Sinhalese King. Buddhism was introduced in the third century B.C. In subsequent centuries the island was invaded and occupied several times by Indian princes.

Ceylon became a full-fledged, self-governing dominion on Feb. 4, 1948, with Stephen Senanayake as Prime Minister. On his death, Mar. 22, 1952, his son Dudley took office. The latter resigned on account of ill health on Oct. 12, 1953, and was succeeded by Sir John Kotelawala. The leftist People's United Front won the April, 1956, elections and its leader, S.W.R.D. Bandaranaike, formed a new government on April 12.

Under the 1946 Constitution, Ceylon's government is headed by the Crown-appointed Governor-General, who is advised by a Council of Ministers headed by the Prime Minister. The bicameral Parliament consists of a House of Representatives of 101 members, and a Senate of thirty members.

ECONOMIC CONDITIONS. Ceylon is heavily dependent on food imports, particularly rice, the staple food. A large part of the cultivated land (25% of the total area) is devoted to the chief export crops—tea, rubber, and coconut products, all of which are grown for the most part on plantations. Other crops include rice, fruits, cinnamon, and citronella.

Leading exports in 1956 were tea (60%), rubber (16%), and coconut oil (6%). Leading customers were Britain (29%), China (10%), and the United States (8%); leading suppliers, Britain (21%), India (13%), and Burma (9%).

NATURAL FEATURES AND RESOURCES. Most of the island is flat, but mountains in the south rise to 8,000 feet. The island extends to a maximum of 270 miles north and south, and 140 miles east and west. There are numerous rivers, the longest of which is the Mahaweli-Ganga (206 miles).

Mineral resources include graphite (plumbago), gem stones, mica, magnesite, and vanadium; uranium deposits have been reported.

CYPRUS—Status: Colony.

Capital: Nicosia (pop. 1956: 49,000).

Governor: Sir Hugh Foot.

Foreign trade (1956): exports (34% to western Germany); imports (45% from Britain). Chief exports: cupreous concentrates (32%), pyrites (27%).

Agricultural products: barley, wheat, potatoes, wine, fruit.

Minerals: copper ore (concentrates), pyrite ore.

Cyprus, third largest island in the Mediterranean, is roughly equidistant from Asia Minor to the north and Syria to the east. The site of early Phoenician and Greek colonies, it passed in 1571 from the rule of Venice to that of the Ottoman Empire, under which it remained until 1878, when it was ceded to Great Britain for administrative purposes. On the outbreak of hostilities with Turkey in World War I (Nov. 5, 1914), the island was formally annexed to Great Britain.

The Governor is advised by a nominated Executive Council, but he alone possesses the lawmaking power.

Demands for self-determination and union with Greece, marked by terrorism, continues to be a major problem.

The people are mainly Greeks (80.8% by the last census—1946) and Turks (17.7%), although there is an Armenian colony and a small Latin colony. More than 80 per cent of the population is Christian. Agriculture is the principal industry. Sponge fishing is also important, as well as copper mining.

HONG KONG—Status: Colony.

Capital: Victoria (population 1,000,000).

Governor: Sir Robert Blank.

Foreign trade: Chief export: textiles.

Agricultural products: rice, sugar cane.

Major industries: shipbuilding, rope making, cement, sugar refining, textiles.

The colony of Hong Kong comprises the island of Hong Kong (32 sq. mi.), Stonecutters' Island, and the Kowloon peninsula and the New Territories on the adjoining mainland. The island of Hong Kong, located at the mouth of the Canton River about ninety miles southeast of Canton, was ceded to Britain in 1841.

Stonecutters' Island and Kowloon were annexed in 1860, and the New Territories, which are mainly agricultural lands, were leased from China in 1898 for ninety-nine years. Hong Kong was attacked by Japanese troops Dec. 7, 1941, and surrendered the following Christmas Day. It remained under the occupation of the Japanese until Sept., 1945.

Possessing an excellent natural harbor seventeen miles in extent, the only safe deep-sea anchorage between Shanghai and Indo-China, Hong Kong is the entrepôt for trade throughout southern China and the western Pacific.

The cities of Victoria and Kowloon contain the greater part of the population, which is overwhelmingly Chinese. Besides those Chinese engaged in agriculture or industry, a large population lives in sampans or junks either in Victoria Harbour or neighboring bays, supporting itself by fishing or by laboring on the wharves.

India (Republic)

(Member of Commonwealth of Nations)

Area: 1,269,640 square miles.*

Population (est. 1957): 392,440,000* (Hindu, 85%; Moslem, 9.9%; Christian, 2.3%; Sikh, 1.7%; others [Jain, Buddhist, Zoroastrian, Jewish, etc.], 1.1%).

Density per square mile: 301.6.

President: Rajendra Prasad.

Prime Minister: Pandit Jawaharlal Nehru.

Principal cities (census 1951): Bombay, 2,839,270 (seaport; cotton and textiles); Calcutta, 2,548,677 (chief port); Madras, 1,416,056 (seaport); Hyderabad, 1,085,722 (trade center); Delhi, 914,973 (manufacturing); Ahmedabad, 788,333 (manufacturing); Bangalore, 778,977 (manufacturing); Kanpur (Cawnpore), 705,383 (textiles); New Delhi, 276,314 (capital).

Monetary unit: Rupee.

Principal languages: Hindi (official), English†, Bengali, Assamese, Gujarati, Kannada, Kashmiri, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil, Telugu, Urdu.

* Including Jammu and Kashmir; status in dispute with Pakistan. † To be used for all official purposes until 1965.

HISTORY. The Aryans or Hindus who invaded India between 2400 and 1500 B.C. from the northwest found a land already well civilized. Buddhism was founded in the sixth century B.C. and spread through northern India. The first exact date in Indian history is 327 B.C., when Alexander the Great invaded India. Meanwhile India continued to be divided into rival states.

In 1526, Mohammedan invaders founded the great Mogul empire, centered on Delhi, which lasted at least in name until 1857. Akbar the Great (1542–1605) strengthened this empire and became the ruler of a greater portion of India than had ever before acknowledged the suzerainty of one man. The long reign of his great-grandson, Aurangzeb (1658–1707) represents both the culmination of Mogul power and the beginning of its decay.

Vasco da Gama, the Portuguese explorer, visited India first in 1498, and for the next hundred years the Portuguese had a virtual monopoly on trade with the subcontinent. Meanwhile, the English founded the East India Company, which set up its first factory at Surat in 1612 and began expanding its influence, fighting against the Indian rulers and the French, Dutch, and Portuguese traders simultaneously.

Bombay, taken from the Portuguese, became the seat of English rule in 1687. The defeat of French and Moslem armies by Lord Clive in the decade ending in 1760 laid the foundation of the British Empire in India. From then until 1858, when the administration of India was formally transferred to the British Crown following the great mutiny of native troops in 1857, the East India Company was constantly occupied with the suppression of native uprisings and the extension of British rule.

After World War I, in which the Indian states sent more than 1,000,000 troops to fight beside the Allies, Indian nationalist unrest rose to new heights under the leadership of a little Hindu lawyer, Mohandas K. Gandhi, called Mahatma Gandhi. His tactics, of a politico-religious nature, called for non-violent revolt against British authority. He soon became the leading spirit of the all-India Congress Party, which was the spearhead of Indian revolt against British rule. In 1919 the British gave added responsibility to Indian officials, and by an act passed in 1935 India was given a federal form of government and a measure of self-rule.

During the 1940's the policy of both the wartime coalition government of Britain and later the Labour government envisaged an unpartitioned India as a self-governing federal dominion including both British India and the native states. In 1942, with the Japanese pressing hard on the eastern borders of India, the British war Cabinet decided to send Sir Stafford Cripps to India to try to reach a political settlement with nationalist leaders. The mission failed. Shortly thereafter the Congress Party took the position that the British must quit India. In August 1942, fearing mass civil disobedience, the government of India carried out widespread arrests of Congress leaders, including Gandhi.

Gandhi was released in May, 1944, and other leaders later. Negotiations for a settlement were resumed and they proved fruitless until the British Labour government sent a mission in 1946 which obtained the agreement of the Congress party and Mohammed Ali Jinnah's Moslem League to a long-term plan for a Constitution based on three separate groups of provinces with a minimal center. However, agreement was not reached on an interim government and the Moslem League later reverted to its position of unconditional partition. Finally, in February, 1947, the Labour government announced its determination to transfer power to "responsible Indian hands" by June, 1948, even if a Constitution had not been worked out.

With the appointment at the same time of Lord Mountbatten as Governor-General, events moved swiftly. By early June, 1947, agreement was reached on the partitioning of India along religious lines (a plan previously opposed by the predominant Hindus and by Britain) and on the splitting of the provinces of Bengal and the Punjab, which the Moslems had claimed in their entirety.

The Indian Independence Act, passed quickly by both houses of the British Parliament, received royal assent on July 18, 1947, and on Aug. 15 the Indian Empire, united under British rule for almost a century, passed into history.

GOVERNMENT. India is now a sovereign republic within the Commonwealth of Nations—a status approved by the other Commonwealth nations at London in April, 1949, on the condition that India recognize the King as head of the Commonwealth. Under the Constitution adopted by the Constituent Assembly on Nov. 26, 1949, India has a parliamentary type of government. The constitutional head of state is the president, who is elected every five years. Dr. Rajendra Prasad has held this office continuously since January 26, 1950. He is advised by a prime minister and cabinet based on a majority of the bicameral parliament, which consists of a Council of States, representing the constituent units of the Republic, and a House of the People, elected every five years by universal adult (21 years) suffrage.

Native States. Most of the 560-odd native states and subdivisions of pre-1947 India acceded to the new nation, and the central government pursued a vigorous policy of integration. This took three forms: (1) merger into adjacent provinces, (2) conversion into centrally administered areas, and (3) grouping into unions of states. Finally, under a controversial reorganization plan effective Nov. 1, 1956, the unions of states were abolished and merged into adjacent states and India became a union of fourteen states and six centrally administered areas.

The status of the large princely state of Jammu and Kashmir on the northwest frontier is in dispute with Pakistan. It is 85 per cent Moslem, but its Hindu ruling

POLITICAL SUBDIVISIONS OF REPUBLIC OF INDIA, NOVEMBER 1956

States	Area, sq. mi. (approx.)	Population, census 1951*		Area, sq. mi. (approx.)	Population, census 1951*
Andhra Pradesh ..	110,250	32,200,000	Travancore-Cochin	9,144	9,280,425
Assam	84,924	9,000,000	Centrally Administered Territories		
Bihar	67,830	38,930,000	Andaman and Nicobar Islands ..	3,215	30,971
Bombay	188,240	47,800,000	Delhi	578	1,744,072
Jammu and Kashmir†	92,780	4,400,000	Himachal Pradesh	10,451	983,367
Kerala	14,980	13,600,000	Laccadive and Amin-dive Islands ..	10	21,035
Madhya Pradesh ..	171,200	26,100,000	Manipur	8,628	577,635
Madras	50,170	30,000,000	Tripura	4,032	639,029
Mysore	72,730	19,000,000			
Orissa	60,140	14,600,000			
Punjab	46,616	16,000,000			
Rajasthan	132,300	16,000,000			
Uttar Pradesh ..	113,410	63,200,000			
West Bengal	33,279	26,160,000			

* Estimated on basis of census where territorial changes in unit have occurred since 1951. † Status in dispute with Pakistan.

prince acceded to India, which took over administration following invasion by Moslem troops in late 1947. The U. N. Security Council voted on April 21, 1948, to hold a plebiscite in the area, but it was never held. The part occupied by India was incorporated into India in Jan. 1957.

ECONOMIC CONDITIONS.

Leading customers in 1956 were Britain (31%), the United States (15%), and Japan (5%); leading suppliers, Britain (26%), the United States (12%), and western Germany (10%). Leading exports were tea (23%), jute, and bagging (19%) and cotton manufactures. Main imports included petroleum and products, machinery, raw cotton, and rice.

NATURAL FEATURES AND RESOURCES.

The Indian republic contains a large part of the great Indo-Gangetic plain which extends from the Bay of Bengal on the east to the Afghan frontier and the Arabian Sea on the west. This plain is the richest and most densely settled part of the subcontinent. Another distinct natural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying the southern or peninsular portion of the subcontinent.

Forming a part of the republic are several groups of islands—the Laccadives (fourteen islands) in the Arabian Sea; the Andamans (204 islands) and the Nicobars (nineteen islands) in the Bay of Bengal.

India's three great river systems, all rising in the Himalayas, have extensive deltas. The Ganges flows south and then east for 1,540 miles across the northern plain to the Bay of Bengal; part of its delta, which begins 220 miles from the sea, is within the republic. The Indus, starting in Tibet, flows northwest for several hundred miles in Kashmir before turning southwest toward the Arabian Sea; it is important for irrigation in Pakistan. The Brahmaputra, also rising in Tibet, flows eastward first through India and then south into Pakistan and the Bay of Bengal.

Minerals. The republic has rich mineral resources. The most valuable mineral is coal, deposited throughout most of the nation.

Assam and the Punjab produce oil. Other minerals include iron ore, monazite, diamonds, magnesite, uranium, zircon, silver, graphite, gypsum, tungsten ore, and sapphires.

Malaya, Federation of

(Member of Commonwealth of Nations)

Area: 50,690 square miles.

Population (est. June 30, 1955): 6,058,317
(1947: Malayan, 49.5%; Chinese, 38.4%;

Indian and Pakistani, 10.8%; others, 1.3%).

Density per square mile: 119.5.

Head of State: Sir Abdul Rahman.

Prime Minister: Yang Rahman Putra.

Principal cities (census 1947): George Town, 189,063 (seaport); Kuala Lumpur, 175,961 (capital); Ipoh, 80,894 (tin); Malacca, 54,507 (seaport, rubber, copra).

Monetary unit: Malayan dollar.

Languages: English, Malay, Chinese, Tamil.

Religions: Moslems (predominant), Christian, Buddhist.

The Federation of Malaya consists of the states of Johore, Kedah, Kelantan, Negri Sembilan, Pahang, Perak, Perlis, Selangor, and Trengganu, and the former British settlements (crown colonies) of Malacca and Penang. The native states were brought under British administration by a process of commercial and political exploitation in the late nineteenth and early twentieth centuries.

As the result of agreements reached with the British government in 1956 and 1957, the Federation attained full independence within the Commonwealth on August 31, 1957. Sir Abdul Rahman was elected the first head of state, and Tengku Abdul Rahman (no relation) became prime minister.

Under the 1957 constitution Malaya is a sovereign constitutional monarchy within the Commonwealth of Nations, recognizing the Queen as head of the Commonwealth. The head of state is elected by the rulers of the states from among themselves for a 5-year term. He is advised by the prime minister and his cabinet. Parliament consists of a senate and house of representatives, but pending elections scheduled for 1959 the present legislative council continues in office. Each state has a constitutional government headed by a hereditary ruler except for Malacca and Penang, the governors of which are appointed by the head of state.

About 65% of the cultivated area is devoted to rubber, of which Malaya is one of the world's largest producers. Other export crops include coconuts and coconut oil, tea, and pineapples. Production of rice, the principal subsistence crop, falls far short of meeting local requirements.

Leading customers in 1956 were Britain (17%), the United States (15%), and Japan (8%); leading suppliers, Indonesia (28%), Britain (18%), and Thailand (7%). Leading exports in 1955 were rubber (56%) and tin (10%).

Malaya is rich in minerals. Tin, the most important, occurs throughout the country but production is concentrated in Perak and Selangor. Other minerals include iron ore, coal, bauxite, tungsten, and manganese ore.

Pakistan (Republic)

(Member of Commonwealth of Nations)

Area: 364,737 square miles.

Population (est. 1956): 84,777,000

(Moslem, 86%; Hindu, 13%; others, 1%).

Density per square mile: 229.2.

President: Maj. Gen. Iskander Mirza.

Prime Minister: (vacant as of Oct. 9, 1958. See News Record of 1958.)

Principal cities (census 1951): Karachi, 1,126,417 (capital); Lahore, 849,476 (capital, west Pakistan); Dacca, 276,033 (capital, east Pakistan); Hyderabad, 241,801 (trade and rail center); Rawalpindi, 237,219 (military center).

Monetary unit: Pakistani rupee.

Principal languages: Bengali (official),

Urdu (official), English*, Hindi, Punjabi.

* To be used for official purposes until 1976.

HISTORY AND GOVERNMENT. Pakistan, a self-governing member of the Commonwealth of Nations and one of the two successor states to British India, is the world's largest and most important Moslem state.

The history of Pakistan prior to 1947 is principally that of India. (See India.) Upon the transfer of power on Aug. 15, 1947, Mohammed Ali Jinnah became the first Governor-General; he died on Sept. 11, 1948, and was succeeded by Khwaja Nazimuddin. The latter became Prime Minister upon the assassination of Liaquat Ali Khan, Oct. 16, 1951; he was replaced on Apr. 17, 1953, by Mohammed Ali. Chaudry Mohammed Ali succeeded him on Aug. 11, 1955. Pakistan was proclaimed a republic March 23, 1956, and Gov. Gen. Iskander Mirza was elected Provisional President. H. S. Suhrawardy, the first non-Moslem League prime minister, took office Sept. 12, 1956.

Under the Constitution of Feb. 29, 1956, Pakistan is a republic but continues its membership in the Commonwealth of Nations. The President is elected for five years by members of the central and provincial legislatures. The Prime Minister and his Cabinet are named by the President but are collectively responsible to the National Assembly. The Assembly has 300 members, divided equally between East and West Pakistan and directly elected for five years.

Provinces. Pakistan consists of two provinces—West and East Pakistan—approximately 1,000 miles apart, separated by the republic of India. The province of West Pakistan consists of Sind, Baluchistan, the former North-West Frontier Province, western Punjab, the princely state of Bahawalpur and a few other small native states. The province of East Pakistan consists of eastern Bengal and the Sylhet district of Assam. Pakistan contains large communal minorities of Hindus and Sikhs.

ECONOMIC CONDITIONS. Pakistan, poor in industry and natural resources, is

mainly an agricultural nation. Upwards of 45,000,000 acres are under cultivation, almost half of which are irrigated, largely in Sind and west Punjab in western Pakistan. The Punjab contains important wheat-growing areas, and eastern Pakistan is rich in jute, rice, and tea. In 1953-54 there were 6,145,000 sheep, 7,067,000 buffalo, 31,060,000 cattle, 470,000 horses, and (1952) 477,000 camels.

Pakistan is an exporter of agricultural products and an importer of manufactured commodities.

Chief exports in 1956 were jute (46%), raw cotton (23%), tea, wool, and jute manufactures. Leading customers in 1955 were Britain (15%), India (13%), Japan (12%), and the United States (8%); leading suppliers, Britain (24%), Japan (14%), and the United States (11%). Leading imports were machinery, petroleum and products, iron and steel and products, vehicles, and cotton piece goods.

Development of a unified nation is retarded by the fact that communication between east and west Pakistan is possible only through a thousand miles of Indian territory or by a long sea voyage.

Since partition, Pakistan has made much progress toward industrialization. The most important manufacturing area is in the vicinity of Lahore in the Punjab. Industries include cotton ginning, spinning and weaving, jute manufacturing, sugar refining, cement making, flour milling, railway and engineering workshops, and petroleum refining.

NATURAL FEATURES AND RESOURCES. Almost all of Sind and the west Punjab are a continuation of north-central plains leading up to rugged mountains in the north and west which traverse Baluchistan and the North-West Frontier Province. Eastern Pakistan is a low-lying, flat country with elevation averaging not more than 600 feet above sea level.

Mineral resources are limited to petroleum, coal, lignite, chromite, and gypsum. Vast quantities of natural gas were discovered at Sui, Baluchistan, in 1952.

SINGAPORE—Status: Colony.

Capital: Singapore (population 1947: 441,885).

Commissioner General in Southeast Asia: Sir Robert Scott.

Governor: W. A. C. Goode.

Chief Minister: Lim Yew Hock.

Foreign trade: see Federation of Malaya.

Singapore, founded in 1819 by Sir Stamford Raffles, comprises the island of Singapore and adjacent islets. It became a

separate Crown colony of Great Britain on Apr. 1, 1946, when the former colony of the Straits Settlements was dissolved. Penang and Malacca were transferred to the Malayan Union, and the small island of Labuan to North Borneo. The Cocos or Keeling Islands were transferred to Australian control in 1951 and Christmas Island in 1957.

Under its 1955 Constitution, Singapore has a Legislative Assembly of thirty-two, twenty-five of whom are directly elected, and a Council of Ministers responsible to the Assembly.

The Commissioner General in Southeast Asia is charged with the coordination of administration in the Malayan Federation, Singapore, Sarawak, North Borneo, and Brunei.

The basis of Singapore's prosperity is its entrepôt trade. It handles a large part of the export trade of Malaya and also conducts a large volume of trade with Indonesia. Singapore has an excellent natural harbor and is the principal British naval base in the Far East. About 78% of the population is Chinese and 12% Malayan.

OCEANIA

Australia, Commonwealth of

(Member of Commonwealth of Nations)

Area: 2,974,581 square miles.

Population (est. 1957): 9,643,000 (excluding full-blooded aborigines, estimated at 50,000).

Density per square mile: 3.2.

Ruler: Queen Elizabeth II.

Governor General: Field Marshal Sir William Slim.

Prime Minister: Robert Gordon Menzies.

Principal cities (est. June 30, 1956): Sydney, 1,935,880 (seaport, wool market); Melbourne, 1,595,300* (seaport, wool, wheat); Brisbane, 527,500 (seaport, industrial center); Adelaide, 514,000 (seaport); Perth, 369,000 (western seaport); Canberra, 32,440 (capital).

Monetary unit: Australian pound (£A).

Language: English.

Religions (census 1947): Anglican, 39.0%; Roman Catholic, 20.7%; Presbyterian, 9.8%; Methodist, 11.5%; other Christians, 7.1%; others, 11.9%.

* Estimate Dec. 31, 1955.

HISTORY AND GOVERNMENT. Australia was the last continent to be discovered. The first Europeans to land were the Dutch, who sailed into the Gulf of Carpentaria in March, 1606. Later in the same year, Luis Vas de Torres, a Spaniard, sailed through the strait subsequently named for him, and may have touched at several points on the north coast. In 1642 Abel Tasman (for whom Tasmania was named) sailed from west to east along the southern shore and proved that Australia was not a part of the Antarctic Continent.

The continent was called New Holland until about 1850.

In 1770 Captain James Cook, after visiting New Zealand, sailed to the east coast of New Holland and landed south of the present city of Sydney. His account of the country led to its being claimed and settled by Great Britain.

The first settlement, made in 1788 at Botany Bay, was founded as a penal station for criminals from England. Transportation of criminals was virtually suspended in 1839, and Australia had comparatively few white settlers until gold was discovered in Victoria in 1851, after which immigrants poured in. By 1860 all the states (then separate colonies) except Western Australia had been granted responsible government.

On January 1, 1901, the six Australian states united to form the Commonwealth of Australia.

Federal judicial power is vested in a Federal Supreme Court of 7 justices, appointed by the Governor General in Council. Each state has its own judicial system.

ECONOMIC CONDITIONS. About 55 percent of Australia's total area is suitable (mining excepted) only for pastoral pursuits. On March 31, 1956, there were 139,124,000 sheep, 16,457,000 cattle, 1,166,000 hogs and 770,000 horses.

Sugar and cotton are grown in Queensland and New South Wales, tobacco in northeast Victoria, and vines chiefly in South Australia and Victoria.

New South Wales is the leading industrial state. Power for industry is derived almost entirely from coal.

In 1955-56 the leading customers were Britain (33%), Japan (11%), France (9%) and the United States (7%); leading suppliers, Britain (43%), the United States (12%), western Germany (4%), and Arabian states (4%). Chief exports were wool (43%), meat (8%), wheat (6%), and fruit (4%). Leading imports included petroleum and products, motor vehicles, iron and steel, and cotton piece goods.

The principal ports are Sydney, Melbourne, and Adelaide.

NATURAL FEATURES AND RESOURCES. Australia is approximately equal in area to the United States and is more than three-fourths the size of Europe.

Along the east coast, ranges of mountain run from north to south, reaching the highest point in Mt. Kosciuszko (7,352 ft.). The western half of the continent is occupied by a desert plateau which rises into barren, rolling hills near the west coast. It includes the Great Victoria Desert, to the south, and the Great Sandy Desert to the north. The island of Tasmania (26,215 sq. mi.) lies off the southeastern coast.

Australia possesses considerable mineral resources. Most important is gold, followed by coal, mined near Sydney, Brisbane, and in eastern Tasmania. The Broken Hill mines in New South Wales are one of the most valuable silver-lead-zinc areas in the world. Other important minerals in 1955 included tin, copper, iron ore, and uranium. Petroleum was discovered in Western Australia in 1953.

Forest products include timber (rough sawn), eucalyptus oil, sandalwood oil, tan bark and yacca gum. Sea products include *bêche-de-mer*, oysters, pearls, pearl shell, tortoise shell, and agar-agar.

DEPENDENCIES. Norfolk Island (13 sq. mi.), under Commonwealth administration since 1914, lies about 800 miles east of New South Wales. It enjoys a delightful subtropical climate. Citrus fruits, bananas and coffee are grown.

Nauru (about 8 sq. mi.), an important source of phosphate (exports about 1,000,000 tons annually) was annexed by Germany in 1888 and was placed under joint Australian, New Zealand and British mandate after World War I. In 1947 it was placed under U. N. trusteeship, with the same three administering powers. It lies approximately 2,215 miles northeast of Sydney.

The Ashmore and Cartier Islands (.8 sq. mi.), about 200 mi. off the northeast coast, were placed under Australian authority in 1931, while the Heard and McDonald Islands (158 sq. mi.), about 2,500 mi. southwest of Fremantle, were transferred to Australian control in 1947.

The Australian Antarctic Territory (2,472,000 sq. mi.), comprising all the islands and territories other than Adélie Land situated south of 60° S. lat. and lying between 160° E. long. and 45° E. long., was placed under Australian authority by an order in council effective in 1938.

The Cocos (Keeling) Islands (5 sq. mi.; population 1,000) are a group of 27 small coral islands in the Indian Ocean about 1,160 mi. southwest of Singapore. Used as a link on the Australia-South Africa air route, they were placed under Australian administration in 1951. Christmas Island (62 sq. mi.; population 2,000), about 850 mi. southeast of Singapore, was transferred to Australian control in 1957. It has important phosphate deposits.

PAPUA AND NEW GUINEA, TERRITORY OF—Status: Australian territory and U. N. trust territory.

Capital: Port Moresby (population 13,800).

Chief exports: copra, rubber, gold.

Agricultural products: coconuts, rubber, copra, cacao.

Minerals: gold, silver, platinum.

Effective July 1, 1949, the Australian

territory of Papua and the U. N. trust territory of New Guinea were joined in an administrative union by act of the Australian Parliament. Provision is made for an executive and a legislative council.

Papua, comprising the southeastern part of the island of New Guinea, and the islands of the D'Entrecasteaux, Louisiade and nearby groups, was annexed by Queensland in 1883 and by the British Crown in 1888. It came under the control of the Australian Commonwealth in 1961 and became the Territory of Papua in 1966. Japan invaded Papua in early 1942, but in Dec. 1942, Australian control was restored.

The U. N. trust territory of New Guinea, comprising the northern section of eastern New Guinea (93,000 sq. mi.), was mandated in 1920 by the League of Nations to the government of the Commonwealth of Australia, together with the Bismarck Archipelago (New Britain, New Ireland and adjacent islands), the Admiralty Islands with several outlying groups, and the northern Solomon Islands (Bougainville and Buka). It was placed under United Nations trusteeship Dec. 13, 1946, with Australia as the administering power. Japanese troops occupied much of the territory in 1942-45. On June 30, 1954, there were 8,020 Europeans and 3,422 other nonnatives in the territory.

FIJI—Status: Colony.

Governor: Sir Ronald H. Garvey.

Capital: Suva (population 36,967).

Foreign trade (1955): exports, 38% to Britain; imports, 37% from Britain. Chief exports: sugar (49%), coconut oil (18%), gold (8%).

Agricultural products: sugar, coconut oil, copra, bananas, pineapples.

Minerals: gold.

Fiji colony consists of an archipelago of from 200 to 250 islands in the South Pacific Ocean about 1,740 miles northeast of Sydney, Australia. The larger islands, including Viti Levu (4,011 sq. mi.) and Vanua Levu (2,137 sq. mi.) are mountainous and of volcanic origin. The archipelago was ceded to Great Britain by the native ruler in 1874.

The population of the archipelago in Dec. 1955 included 9,391 Europeans, 146,842 Fijians and 166,262 Indians. Importation of the latter to work the sugar plantations has led to important social and economic changes. There has been almost no intermarriage between Fijians and Indians, and considerable ill feeling has developed between them.

During World War II, the archipelago was an important air and naval station on the route from the United States west coast and Hawaii to Australia and New Zealand.

TONGA (FRIENDLY ISLANDS)—Status: Protected state.

Ruler: Queen Salote Tupou.

Chief export: copra (86%).

This native Polynesian kingdom in the Pacific came under British protection through the Anglo-German agreement of November 14, 1899. The native Queen is advised by a British Agent; the 21-member native Legislative Council is partly elected and partly nominated. The only important products are copra and bananas.

PITCAIRN ISLAND—Status: Colony.

Located in the South Pacific, about midway between Australia and South America, Pitcairn has an area of 2 square miles. It was settled in 1790 by British mutineers from the ship *Bounty*, commanded by Capt. Bligh. Overpopulation forced removal of the settlement to Norfolk Island in 1856, but about 40 soon returned. The island is administered by the Governor of Fiji through an elected council headed by a Chief Magistrate. The population is about 150.

New Zealand

(Member of Commonwealth of Nations)

Area: 103,740 square miles (including outlying islands).

Population (est. 1957): 2,229,000.

(1951: European, 93.3%; Maori and half-caste, 5.9%; others, 8%).

Density per square mile: 21.4.

Ruler: Queen Elizabeth II.

Governor General: Viscount Cobham.

Prime Minister: Walter Nash.

Principal cities (census, Apr. 1956): Auckland (greater), 380,412 (seaport and naval base); Christchurch, 193,182 (cereals, stock raising); Wellington, 138,035 (capital); Dunedin City, 99,326 (textiles).

Monetary unit: New Zealand pound (£NZ).

Language: English.

Religions (census 1951): Church of England, 37.5%; Presbyterian, 22.3%; Roman Catholic, 13.6%; Methodist, 8.1%; Baptist, 1.6%; others, 16.9%.

HISTORY AND GOVERNMENT. New Zealand, about 1,250 miles east of Australia, consists of two main islands and a number of smaller outlying islands so scattered that they range from the tropical to the antarctic. The islands, which have approximately the area of Italy, were discovered and named New Zealand in 1642 by Abel Tasman, a Dutch navigator. Captain James Cook explored them in 1769. On Jan. 22, 1840, Britain formally annexed them.

New Zealand was granted self-government in 1852, a full parliamentary system and ministries in 1856 and dominion status on Sept. 26, 1907. Meanwhile from 1861 to 1871 there was fierce intermittent fighting with the native Maoris. Gold was first discovered in 1853.

ECONOMIC CONDITIONS. Primarily a grazing country, New Zealand is one of the world's largest exporters of mutton, lamb, wool, butter and cheese. In 1955, livestock included 39,117,300 sheep, 5,886,777 cattle and 681,359 hogs. Outside of grass, the chief crop is wheat. Other crops are oats, barley, potatoes, onions, tobacco, fruits, and vegetables.

Leading customers in 1956 were Britain (65%), the United States (7%), France (6%), and western Germany (5%); leading suppliers, Britain (54%), Australia (14%), the United States (8%), and western Germany (3%). Leading exports were wool (33%), butter (19%), and lamb and mutton (16%).

NATURAL FEATURES AND RESOURCES. New Zealand's two main components are North Island and South Island, separated by Cook Strait, which varies from sixteen to 190 miles in width. North Island (44,281 sq. mi.) is 515 miles long and volcanic in its south central part. It contains many hot springs and beautiful geysers.

South Island (58,093 sq. mi.) has the Southern Alps along its west coast, with Mt. Cook (12,349 feet) the highest point in New Zealand.

Principal minerals are coal and gold. Other minerals of importance include tungsten, pumice, silica sand, asbestos, scheelite, iron ore, and phosphate. About 30 per cent of the total area is forested.

Numerous rushing streams give New Zealand a great volume of hydroelectric power. About 95 per cent of the population has access to power.

DEPENDENCIES. The Auckland Islands (234 sq. mi.) and Campbell Island (44 sq. mi.) are the principal outlying islands which have a total area of 324 square miles. They are included within the geographical boundaries of New Zealand as proclaimed in 1847. The Aucklands and Campbell are uninhabited. Six hundred miles north of the Aucklands are the volcanic Kermadec Islands (13 sq. mi.), annexed in 1887. The Union (or Tokelau) Islands (4 sq. mi.) transferred in 1925 from the Gilbert and Ellice Islands colony, were declared part of New Zealand effective Jan. 1, 1949.

In Polynesia a number of uninhabited islands were brought under New Zealand's control in 1901. Rarotonga and Mangai in the Cook group total 84 square miles. Niue (or Savage Island) (115 sq. mi.) is the largest island outside the Cook group. New Zealand also administers the Ross Dependency (175,000 sq. mi.), an antarctic region claimed by Great Britain in 1923.

WESTERN SAMOA—Status: U. N. trust territory.

Capital: Apia (population 16,000).

Chief exports: cacao, copra, bananas.

Principal products: copra, cacao, bananas, tropical fruits.

The former German Samoan Islands were occupied by New Zealand troops in the opening weeks of World War I and were mandated to New Zealand by the League of Nations in 1920 as the Territory of Western Samoa. They came under U. N. trusteeship in 1947, with New Zealand continuing as the administering authority. The High Commissioner is assisted by an Executive Council, a Legislative Assembly which has a Samoan majority and a consultative Native Council. There are 9 islands, of which the largest and most populous are Savaii (703 sq. mi.) and Upolu (430 sq. mi.). They are largely mountainous but fertile. The inhabitants are predominantly Polynesian Christians.

There are no native states, and administration is carried on by the High Commissioner assisted by a nominated Advisory Council. The most important products are copra and kauri wood. The population is predominantly Melanesian.

Bulgaria (People's Republic) (Narodna Republika Blgariya)

Area: 42,796 square miles.

Population (census 1956): 7,601,000. (1952: Bulgarian, 91%; Turkish, 6%; Gypsy, 2%; others, 1%).

Density per square mile: 178.3.*

Chairman of Presidium: Georgi Damjanov.

Premier: Anton Yugov.

Principal cities (est. 1953): Sofia, 600,000 (capital, railroad center); Plovdiv, 150,000 (commercial center); (census 1946) Varna, 77,792 (Black Sea port); Ruschuk, 53,420 (chief Danube port); Burgas, 43,684 (Black Sea port).

Monetary unit: Lev.

Languages: Bulgarian, Turkish.

Religions: Greek Orthodox, 84.4%; Mohammedan, 13.5%; Jewish, .8%; Roman Catholic, .8%; others, .5%.

HISTORY AND GOVERNMENT. The first Bulgarians, a tribe of wild horsemen akin to the Huns, crossed the Danube from the north in A.D. 679, and subjugated the Slavonic population of Moesia. They adopted a Slav dialect and Slavic customs and twice conquered most of the Balkan peninsula between 893 and 1280. After the Serbs subjected their kingdom in 1330, the Bulgars gradually fell prey to the Turks, and from 1396 to 1878 Bulgaria was a Turkish province. In 1878, Russia forced Turkey to give the country its independence; but the European powers, fearing that Bulgaria might become a Russian dependency, intervened. By the Treaty of Berlin (July, 1878), Bulgaria became autonomous under Turkish sovereignty.

In 1887, Prince Ferdinand of Saxe-Coburg-Gotha was elected ruler; on Oct. 5, 1908, he declared Bulgaria an independent kingdom.

Bulgaria joined Germany in World War I and lost. On Oct. 3, 1918, Tsar Ferdinand abdicated in favor of his son, who became Tsar Boris III. The Treaty of Neuilly the next year disarmed Bulgaria, reduced it to its 1878 size, and levied a heavy indemnity.

Boris assumed dictatorial powers in 1934-35. When Hitler awarded Bulgaria Southern Dobruja, taken from Rumania in 1940, the weak but land-hungry Boris joined the Nazis in war the next year and occupied parts of Yugoslavia and Greece. Later, with the fortunes of war swinging inexorably against them, the Germans tried to force

PACIFIC ISLANDS (British)

High Commissioner in Western Pacific: Sir John Gutch.

Island groups in the Pacific administered by the British High Commissioner in the Western Pacific include (1) Gilbert and Ellice Islands, (2) British Solomon Islands, and (3) New Hebrides Condominium (see French Overseas Territories). The High Commissioner has headquarters at Honiara, Solomon Islands.

GILBERT AND ELLICE ISLANDS—Status: Colony.

The islands in these groups (including the Gilbert group; the Ellice group; Ocean Island [the seat of administration], Fanning, Washington and Christmas Islands; and the Phoenix group) were proclaimed a British protectorate in 1892 and annexed as a colony in 1915. The most important product is high-grade phosphate.

Ownership of Canton and Enderbury islands in the Phoenix group was long in dispute between Great Britain and the United States until 1939, when an agreement for "use in common" was reached by the two governments. Several of the Gilbert islands were occupied by Japanese forces in World War II, and Tarawa was the scene of one of the fiercest battles in U. S. Marine Corps history in Nov. 1943.

SOLOMON ISLANDS—Status: Protectorate.

This British protectorate, lying east of New Guinea, includes the islands of Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Isabel, Choiseul and numerous smaller islands. Bougainville, one of the group, is under Australian mandate. The islands, which came under British protection late in the 19th century, were the scene of several important U. S. naval and military victories during World War II.

Boris to send his troops against the Russians. Boris resisted and died under mysterious circumstances on Aug. 28, 1943.

Simeon II, infant son of Boris, became nominal ruler under a regency. Three days after Russia declared war on Bulgaria on Sept. 5, 1944, Bulgaria declared war on Germany. Russian troops streamed in the next day, and under an informal armistice a coalition "Fatherland Front" Cabinet was set up under Kimon Georgiev.

ECONOMIC CONDITIONS. Most of the population is Greek Orthodox. Clergy of all faiths are paid by the state. The national language, Bulgarian, is closely related to Russian; both employ the Cyrillic alphabet.

Bulgaria is still predominantly agrarian, with most of the population engaged in agriculture. Because of the mountainous character of the country, however, less than half of the land is tilled or used for pasture. Collectivization is well-advanced. More than half the cultivated area is devoted to cereals, including wheat, corn, barley, oats, and rye. Other crops are tobacco, alfalfa, cotton, flax, potatoes, and sugar. There are extensive vineyards in the southern valleys.

Industries are of minor importance and with few exceptions—tobacco leaf, wines and liquors, fertilizers, and flour—are confined to domestic markets. Industrialization is one of the chief aims of the Communist regime, however, and all industries of any importance have been nationalized. Both the first (1948-53) and the second (1953-57) five-year plans emphasized the development of heavy industry.

Foreign trade necessarily consists of the exchange of agricultural products for cheap manufactures.

Leading customers in 1950 were the U.S.S.R. (45%), and Czechoslovakia, Hungary, Rumania, and Poland (31%). Leading suppliers were the U.S.S.R. (67%) and the four above-named satellites (31%). Tobacco is the principal export.

NATURAL FEATURES AND RESOURCES. Two mountain ranges and two great valleys mark Bulgaria's topography. The Balkan belt crosses the center of the country, almost due east-west, rising to a height of 7,800 feet. The Rhodope range breaks off from the Balkans in the west, curves and then straightens out to run nearly parallel along the southern border. Between the two ranges is the valley of the Maritsa, Bulgaria's principal river. Between the Balkan range and the Danube, which forms most of the northern boundary with Rumania, is the Danubian tableland, traversed by several short rivers. Southern Dobruja, a fertile region of 2,900

square miles below the Danube delta, is an area of low hills, fens and sandy steppes.

Soft coal is Bulgaria's principal mineral. Other minerals include chromite, gypsum, iron ore, manganese ore, rock salt, and silver.

Burma (Republic)

Area: 261,757 square miles.

Population (est. 1957): 20,054,000 (1941: Burmans, 60%; Shans, 7%; Chins, 2%; Kachins, 1%; Indians, 6%; Chinese, 1%; Indo-Burmans, 1%; others, 22%).

Density per square mile: 75.8.

President: U Win Maung.

Premier: Gen. NE Win.

Principal cities (census 1953)*: Rangoon, 711,520 (capital, chief port); Mandalay, 182,367 (river port, upper Burma); Moulmein, 101,720 (seaport); Bassein, 77,382 (rice, river port).

Monetary unit: Kyat.

Languages: Burmese (70%), English.

Religions: Buddhist, 90%; Mohammedan, 3%; Hindu, 3%; Christian, 2%; others, 2%.

* Preliminary figures.

HISTORY AND GOVERNMENT. Lying on the eastern side of the Bay of Bengal between India, China, and Thailand, the Union of Burma came into existence as an independent state on Jan. 4, 1948. In 1612 the British East India Company sent agents to Burma, and in the seventeenth and eighteenth centuries the Burmese stoutly resisted the efforts of British, Dutch, and Portuguese traders to establish posts on the Bay of Bengal. Actual British rule dated from 1826, and in 1886 British troops forced the annexation of all Burma to India. On April 1, 1937, the British separated Burma from India and set it up as a Crown colony with its own legislature and a British Governor.

For hundreds of years a battlefield of petty princes, Burma became a key battleground in World War II largely because the 800-mile Burma Road was the Allies' vital supply line to China. The Japanese invaded the country in Dec., 1941, and by May 1942, had occupied most of it, cutting the road. In Aug., 1942, the Japanese set up a puppet government.

After one of the most difficult campaigns of the war, Allied forces liberated most of Burma prior to the Japanese surrender on Aug. 14, 1945.

The Constitution of Sept. 24, 1947, provides for a government headed by the President, who is elected by the two houses of Parliament—the Chamber of Deputies and the Chamber of Nationalities. The President appoints the Premier on nomination of the Chamber of Deputies. Four frontier areas—the Shan, Kachin, and Karenni states, and the Chin special di-

vision—are constituent parts of the Union but enjoy some autonomy. The Constitution contemplates a form of state socialism, with the operation of all public utilities and the exploitation of all natural resources to come eventually under state control.

SOCIAL AND ECONOMIC CONDITIONS.

The natives in general are Mongolian; the Burmese are the most advanced. Indians, settled in the Irrawaddy delta region, supply most of the coolie labor, while the Chinese constitute the artisan and merchant class. Buddhism, the national religion, profoundly affects the national character; every village in the country has its temple.

Burma is essentially agricultural, with crop-growing concentrated in the delta and river valleys. It is a leading producer of rice, the staple food, which occupies two-thirds of the cultivated area. Crops grown in the dry zone in upper Burma include millet, cotton, peanuts, and sesame. Other crops include tobacco, fruit, vegetables, and cereals. The number of rubber plantations has increased. The principal domestic animals are water buffalo, used as a beast of burden in the delta, and small humped oxen, which predominate in other areas.

Leading industries include silk weaving and dyeing, rice husking, oil refining, and wood carving.

Chief exports in 1954-55 were rice and products (75%) and metals and ores (5%). Leading customers were India (34%), Japan (18%), and Britain (9%); leading suppliers were Britain (24%), Japan (23%), and India (17%).

(For further details on Burma's recent economic policy see Burma in *World Politics* section.)

NATURAL FEATURES AND RESOURCES.

Slightly smaller than Texas, Burma is divided into three natural regions: the Irtan Yoma, a long, narrow mountain range forming the barrier between Burma and India; the Shan Plateau in the east, extending southward into Tenasserim; and the Central Basin running down to the flat, fertile delta of the Irrawaddy in the south. This delta contains a network of intercommunicating canals and nine principal mouths.

Mineral resources are considerable but, in many cases, undeveloped.

Other minerals include lead, silver, zinc, nickel, cobalt, copper, gold, iron ore, molybdenum, coal, uranium (reported), rubies, sapphires, and jade.

More than half of Burma is forested. Oak, valuable for naval construction, is the main timber product. Its cutting is strictly controlled.

Cambodia (Kingdom)

Area: 67,568 square miles.

Population (est. 1955): 4,358,000.

Density per square mile: 64.5.

Ruler: King Norodom Suramarit.

Premier: Norodom Sihanouk.

Principal cities (est. 1955): Phnompenh, 375,000 (capital); (1941) Battambang, 23,567 (rice).

Monetary unit: Riel.

Languages: Cambodian, French, Annamese.

Religion: Buddhism.

HISTORY. Cambodia is bounded on the south and east by south Vietnam, on the north by Laos and Thailand, on the west by Thailand, and on the southwest by the Gulf of Siam. Its recorded history dates back to the beginning of the Christian era when it was known as Fou-Nan. It was absorbed in about 600 A.D. by the Khmers, under whose rule magnificent temples were built at Angkor. The arrival of the French, who were granted a protectorate in 1863, prevented the annihilation of the Khmer empire by the Vietnamese and Siamese. It was occupied by Japan during World War II.

ECONOMIC CONDITIONS. About 90% of the population is Cambodian, 5% Annamese, and 4% Chinese. The forested regions of the northeast are inhabited by various primitive peoples.

Agriculture is the basis of the economy. The chief crop is rice, grown principally in the Battambang area. Second in importance is rubber. Other crops include tobacco, kapok, cotton, pepper, and maize. Cattle breeding is of major importance. Native industries include silk and cotton weaving, rice milling, and the salting of fish obtained from Lake Tonle Sap during the low-water season.

Leading exports include rice, rubber, animal products, wool and hides, and skins. A large part of the trade is with France, the United States and Vietnam.

NATURAL FEATURES AND RESOURCES.

Cambodia consists chiefly of a large alluvial plain ringed in by mountains and on the east by the Mékong river. The plain is centered on Lake Tonle Sap, which is a natural storage basin of the Mékong.

Forests cover about 75% of the country, but most are unexploited. Deposits of iron ore, limestone and phosphate exist but also are undeveloped.

Chile (Republic)

(República de Chile)

Area: 286,396 square miles.

Population (est. 1957): 7,121,000.

Density per square mile: 24.2.

President: Jorge Alessandri.

Principal cities (census 1952): Santiago, 1,348,283 (capital); Valparaíso, 218,829 (port); Concepción, 119,887 (farming center); Viña del Mar, 85,281 (resort center); Antofagasta, 62,272 (nitrates).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Europeans first arrived in 1536, when Diego de Almagro, an associate of Pizarro, led an unsuccessful invasion from Peru. Five years later another Spaniard, Pedro de Valdivia, founded Santiago. On Sept. 18, 1810, Chile rebelled against Spanish rule, but independence was not won completely until 1818, when Bernardo O'Higgins and José de San Martín finally crushed the Spanish armies.

Chile, which has never lost a war, fought with Bolivia and Peru in 1879-83 and won the province of Antofagasta, Bolivia's only outlet to the Pacific, as well as extensive areas from Peru. In World War I, Chile was neutral.

GOVERNMENT. The nation elects a President every six years, a Senate of forty-five members every eight years (one half renewable every four years), and a Chamber of Deputies of 147 members every four years. The President is assisted by a Cabinet responsible to him but subject to impeachment by Congress, which also may override a presidential veto by two-thirds vote. All literate citizens over twenty-one may vote in elections.

ECONOMIC CONDITIONS. Chilean agriculture is mostly confined to the temperate central valley, similar to that of California. Productive land is extremely limited, and most of it must be irrigated. Wheat (1956-1957: 1,003,000 metric tons) is the leading crop. Grapes, next to wheat in acreage, produced an estimated 118,800,000 gallons of wine in 1956. Feudal-type estates, averaging 2,500 acres, predominate. Cattle in 1955 totaled 2,596,000 and sheep 6,540,000. Wool production (1956) was about 10,000 metric tons (clean).

Trade. In 1956 the leading customers were the U. S. (51%), Britain (20%), Germany (13%) and Argentina (10%); leading suppliers, the U. S. (43%), Germany (13%), Argentina (6%). Chief exports were copper (72%) and nitrate of soda (9%). Leading imports were machinery (20%), transportation equipment (18%), and petroleum (9%).

Except for mineral processing, most manufacturing is of low-priced consumer's goods, particularly textiles. A steel industry was established in 1946.

NATURAL FEATURES AND RESOURCES. A narrow, mountainous land, Chile has one-third of its area covered by the towering ranges of the Andes. In the north is the mineral-rich Atacama Desert, between the coast mountains and the Andes. In

the center is a 700-mile-long valley, thickly populated, between the Andes and the coastal plateau. In the south, the Andes border on the ocean.

At the southern tip of Chile's mainland is Punta Arenas, the southernmost city in the world, and beyond that lies the Strait of Magellan and Tierra del Fuego, an island divided between Chile and Argentina. The Juan Fernández Islands, in the South Pacific about 400 miles west of the mainland, and Easter Island, about 2,000 miles west, are Chilean possessions.

The basis of the country's economy is its mineral resources in the northern desert provinces of Atacama, Antofagasta and Tarapacá, where the only natural nitrate in the world is found. Some 60 per cent of the world's iodine is obtained as a by-product of nitrate processing. Chile's world monopoly in nitrate, however, declined in importance with development of the synthetic product.

The world's largest copper reserve, estimated at 134 billion pounds, is in Chile, and also more than 900 million tons of high grade iron ore. The reserve of Chilean coal, noted for quantity rather than quality, exceeds two billion tons.

China (Republic)

(Chung-Hua Min-Kuo)

Area: 3,911,209 square miles.*

Population (census 1953): 590,194,715.*

Density per square mile: 150.9.

President, Nationalist China: Generalissimo Chiang Kai-shek.

Premier: O. K. Yui.

Chairman, Communist China: Mao Tse-tung.

Premier: Chou En-lai.

Principal cities (census 1953): Shanghai, 6,204,417 (chief port, industrial and financial center); Peking (Peiping), 2,768,149 (capital, Communist China); Tientsin, 2,693,831 (commercial center); (est. 1952) Chungking, 2,000,000 (river port, trade center); Mukden, 1,790,000 (Manchurian industrial center); Canton, 1,210,000 (southern commercial center); Wuhan, 1,090,000 (river port); Nanking, 1,020,000 (former Nationalist capital).

Monetary unit: Chinese dollar (yuan).

Language: Chinese.

Religions: Principally Confucian, Buddhist and Taoist.

* Including Province of Formosa (Taiwan), Manchuria and Tibet. Census not taken in Formosa (population estimated at 7,591,208); population total excludes an estimated 11,743,320 Chinese resident abroad. The total population figure is regarded with considerable reserve.

HISTORY AND GOVERNMENT. By 2000 B.C., the Chinese were living in the Hwang Ho basin, and they had achieved an advanced stage of civilization by 1200 B.C. The great philosophers, Lao-tse, Confucius, Mo Ti, and Mencius lived during the Chou dynasty (about 1122 to 249 B.C.). The warring feudal states were first united under Emperor Ch'in Shih Huang Ti, during

whose reign (246-210 B.C.) work was begun on the Great Wall. Under the Han dynasty (206 B.C. to A.D. 220) China prospered and traded with the West.

The T'ang dynasty (618-907) has often been called the golden age of Chinese history. Painting, sculpture, and poetry flourished under royal patronage, and printing made its earliest known appearance.

The Mings, last of the native rulers (1368-1644), overthrew the Mongol or Yuan dynasty (1280-1368) established by Kublai Khan, whose dominions extended into eastern Europe. The weakening Mings in turn were overthrown in 1644 by invaders from the north, the Manchus.

The Chinese closely restricted foreign activities, and by the end of the 18th century only Canton (and the Portuguese port of Macao) were open to European merchants. Following the Anglo-Chinese War of 1839-42, however, several treaty ports were opened and Hong Kong was ceded to Britain. Treaties signed after further hostilities (1856-60) weakened Chinese sovereignty and removed foreigners from Chinese jurisdiction. The disastrous Chinese-Japanese War of 1894-95 was followed by a scramble for Chinese leases and concessions by European powers, which resulted in the Boxer Rebellion (1900), suppressed by an international force.

The death of the Empress Dowager Tzu Hsi in 1908 and the accession of the infant Emperor Hsüan T'ung (Pu-Yi) were followed by a nation-wide rebellion led by Dr. Sun Yat-sen, who became first President of the Provisional Chinese Republic in 1911. The Manchus abdicated on Feb. 12, 1912. Dr. Sun resigned in favor of Yuan Shih-k'ai, who suppressed the republicans but was forced by a serious rising in 1915-16 to abandon his intention of declaring himself Emperor. Yuan's death in June, 1916, was followed by years of civil war between rival militarists and Dr. Sun's republicans. The death in 1925 of Dr. Sun, who had controlled only the Canton area in opposition to the recognized regime, was followed by a revival of the Kuomintang party, which practically deified him. Nationalist forces, led by Gen. Chiang Kai-shek and advised originally by Communist experts, soon occupied most of China, setting up a Kuomintang regime in 1928. Internal strife continued, however, and Chiang broke with the Communists.

An alleged explosion on the South Manchurian Railway on Sept. 18, 1931, brought invasion of Manchuria by Japanese forces, who installed the last Manchu Emperor, Henry Pu-Yi, as nominal ruler of the puppet state of "Manchukuo." Japanese efforts to take China's northern provinces in July, 1937, were resisted by Chiang Kai-shek, who meanwhile had succeeded in uniting

most of China behind him. Within two years, however, Japan seized most of the ports and railways. The Kuomintang government retreated first to Hankow and then to Chungking, while the Japanese set up a puppet government at Nanking headed by Wang Ching-wei.

When the Japanese surrendered in 1945, China signed a treaty with the Soviet Union providing for Soviet withdrawal from Manchuria, joint Chinese-Soviet control of Manchurian railways for 30 years, a joint Chinese-Soviet naval base at Port Arthur, and a free port at Dairen.

The surrender of Japan also touched off a civil war between Nationalist and Communist forces for control of China. By the end of 1949, all of the republic except the island of Formosa was under Communist control. Barricaded on Formosa, the Nationalist regime had little means at its disposal to make any effective counter-attack upon the mainland. The United States, however, after the outbreak of the Korean war in June, 1950, promised naval and air aid to repel any invasion of Formosa.

The Communists meanwhile set up, in September, 1949, a soviet-type government. After prolonged negotiations, the People's government and the Soviet Union signed a 30-year treaty of friendship and mutual aid on Feb. 14, 1950; its published terms provided for return of the Changchun railroad to China and the eventual return of Port Arthur and Dairen.

The communist regime subsequently was recognized as the legal government of China by many nations but was unsuccessful in its efforts to secure a place in the U. N. It threw several hundred thousand men into the Korean war of 1950-53 in a futile effort to drive U. N. forces from Korea. (For an assessment of the current policies and international stature of the Communist Regime, see *World Politics* section.)

ECONOMIC CONDITIONS.

Agriculture. In China, nearly 80 per cent of the population depends on the land for livelihood. Subsistence crops are necessarily emphasized, but China is still not self-sufficient in food. Cultivation is intensive, holdings are small, and irrigation is widely practiced. The three most important food crops are rice, wheat, and maize.

In northern China, wheat, barley, corn, sorghum, millet and other cereals, and beans and peas predominate, whereas in the south, rice, sugar, and indigo are most important. The Yangtze basin, one of the most favored agricultural regions in the world, is China's premier granary. Tea, the chief beverage, is grown mainly in the central uplands, coastal ranges and Szechwan.

Silkworm culture is practiced widely, es-

pecially in the lower Yangtze valley. Soybeans and cotton are of ever-increasing importance. Other crops include fibers, tobacco, vegetable oils, cane sugar, and many medicinal plants and spices.

The urgent need for subsistence crops has confined grazing grounds for sheep and cattle to the dry northwest and to mountain pastures. However, such animals as goats, poultry, and especially pigs are raised everywhere. According to unofficial estimates, Communist China had in 1953 28,812,000 cattle, 17,190,000 sheep, 77,376,000 hogs, 34,110,000 goats, and 11,885,000 buffalo.

Industry. Industrially, China is still in its infancy. Development has been mainly in the erection of textile mills, silk and flour mills, match factories, tanneries, and a few steel and cement mills. The production of consumer's goods far exceeds that of producer's goods, which must still be imported.

The communist regime is reported to be concentrating upon Manchuria as China's industrial center and to be shifting some industries to the northwest.

Trade. According to official reports, the U.S.S.R. and its satellites accounted for 80% of Communist China's total trade in 1956. Major exports include textiles and products, tung oil, and pig bristles.

NATURAL FEATURES AND RESOURCES. China has about $1\frac{1}{4}$ times the area of the continental United States. Its coast line is roughly a semi-circle, about 2,150 miles long. The greater part of the country is mountainous, and only in the lower reaches of the Hwang Ho (Yellow) and Yangtze Kiang rivers are there extensive low plains.

The principal mountain ranges are the Tien Shan, to the northwest; the Kunlun chain, which attains a maximum height of 23,890 feet, running south of the Takla Makan and Gobi deserts; and the Trans-Himalaya, connecting the Kunlun with the borders of China and Tibet. Manchuria is largely an undulating plain connected with the north China plain by a narrow lowland corridor. Inner Mongolia contains the relatively fertile southern and eastern portions of the Gobi. The large island of Hainan (13,500 sq. mi.) lies off the southern coast.

Hydrographically, China proper consists of three great river systems. The northern part of the country is drained by the Hwang Ho river, 2,700 miles long and mostly unnavigable. The central part is drained by the Yangtze Kiang, the fifth longest river in the world (3,100 mi.). The Si Kiang in the south is about 1,650 miles long and navigable for a considerable distance. In addition, the Amur forms part of the northeastern boundary.

Minerals. Mineral resources are considerable. Iron ore, far less plentiful than coal, is mined principally in the lower Yangtze valley and in north China. Tin, mined in Yunnan and southwest Szechwan, has been a major mineral export. Of some rarer minerals, notably antimony and tungsten, China is sometimes the world's leading producer. Lead, zinc, silver, mercury, and gold are also mined. The discovery of uranium has been reported in recent years.

Forests and Fisheries. China urgently needs reforestation. Most remaining forests are on inaccessible mountain slopes. Bamboo is cultivated in groves throughout the country south of the Tsinling mountains.

FORMOSA (TAIWAN)—Status: Province (Part of Republic of Nationalist China).

Area: 13,885 square miles.

Population (census 1956, excluding troops and militia): 9,310,158.

Principal cities (est. 1955): Taipei, 677,159 (capital); Kaohsiung, 341,740 (seaport, industrial center); Tainan, 268,243 (agricultural products).

Foreign trade (1956): exports, U. S. \$130,060,000 (35% to Japan); imports, U. S. \$114,360,000* (56% from Japan). Chief exports: sugar (59%), rice (10%), canned pineapple (5%).

Agricultural products (est. 1956, in metric tons): sugar, 795,000; rice (paddy), 1,787,000; tea, 14,500; bananas, pineapples, sweet potatoes.

Manufactures (1956): cement, 573,917 metric tons; cotton cloth, 130,000,000 sq. yd.; paper, 42,000 tons; aluminum, 8,700 tons; steel bars, 67,900 tons.

Minerals: coal (1956: 2,550,000 metric tons), gold, petroleum, silver, sulfur.

* Excludes U. S. aid imports (\$95,374,000) and those with self-provided exchange (\$16,580,000).

Formosa is a large island in the western Pacific, separated from China to the west by the Taiwan straits (narrowest point, 90 mi.). The Pescadores (Bokoto) and other outlying islands (about 78 sq. mi.) became administratively a part of Formosa under Japanese rule. Formosa, ceded to Japan in 1895 after the Chinese-Japanese War, remained Japanese until it was restored to China in 1945, in accordance with the Cairo conference of 1943. It was the only territory under the control of the Nationalist regime after 1949. Under a 1955 mutual defense treaty the United States is committed to defend Formosa and the Pescadores.

Formosa's internal affairs are administered by the provincial government headed by the Governor appointed by the Nationalist government. The provincial assembly is elected by direct popular vote.

Most of the inhabitants are of Chinese stock. There are also about 180,000 aboriginal tribesmen in the interior.

Formosa is essentially an agricultural country with the greater part of the population dependent on farming. It is self-sufficient in most basic foodstuffs and produces surpluses of a number of others, notably rice and sugar. Farms are generally small (average 3 ac.). Cattle and water buffalo are the chief livestock.

Food processing is the island's major industry; it engaged over 6,000 plants in 1955. The textile industry is expanding, and industrial potential was increased by the first four-year program (1953-56).

The island is one of the world's chief sources of camphor, and government monopolies of camphor, salt, opium, and tobacco have been established. Forest resources are enormous.

Formosa is divided by a central mountain range running from north to south, which rises sharply on the east coast and declines gradually to the broad western plain, where cultivation is concentrated.

(For an analysis of recent political developments in this region see *World Politics* section.)

TIBET—Status: Nominally independent; under Chinese Communist control.

Area: 469,413 square miles.

Population (census 1953): 1,273,969.

Capital: Lhasa (about 20,000).

Ruler: The 14th Dalai Lama (Lingerh Pamo Töntrup).

Monetary unit: Sang.

Exports: wool, live animals, salt, hides, borax, tea, musk.

Agricultural products: barley, fruits, pulse, vegetables.

Minerals: borax, salt, coal, gold.

Tibet, north and northeast of the Himalayas, is the highest country in the world, averaging 16,000 feet in elevation and having many peaks ranging up to more than 25,000 feet. Chinese suzerainty over Tibet was established in the 18th century. The area was invaded by a British expeditionary force in 1904, but the Anglo-Russian Convention of 1907 recognized China's influence and stipulated that neither Russia nor Britain should interfere in Tibet's affairs.

Chinese Communist troops invaded the area in October, 1950. An agreement signed with Communist China in May, 1951, recognized the Dalai Lama as spiritual and temporal ruler but made Tibet virtually a Chinese province.

The religion and predominant factor in Tibet's social system is Lamaism, a late form of Buddhism modified by animism and primitive magic. Education is in the control of the many monasteries, some of which have more than 1,000 monks. A large number of the population are lamas, mostly celibates. Both polyandry and polygyny are practiced.

Colombia (Republic) (República de Colombia)

Area: 439,519 square miles.

Population (est. 1957): 13,227,000 (mestizo 68%; white, 20%; Indian, 7%; Negro, 5%).

Density per square mile: 29.4.

President: Maj. Gen. Gabriel Paris (chairman of ruling junta).

Principal cities (est. 1954): Bogotá, 765,360 (capital); Medellín, 431,380 (mining); Cali, 365,800 (coffee, mining); Barranquilla, 324,700 (seaport); Cartagena, 142,800 (seaport); Bucaramanga, 136,170 (industrial center).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Colombia, nearly nine times the size of New York state, is the only country in South America with frontage on both the Pacific and the Caribbean. Its northern coast was one of the first parts of the Americas to be visited by Spanish explorers. Darien, the first permanent European settlement on the American mainland, was founded in 1510.

New Granada, as Colombia was called until 1861, was comparatively neglected during the Spanish colonial era. After winning independence from Spain during a fourteen-year struggle ending in 1824, the country established a republic in 1831, including the area that now is Panamá. Intermittent civil war plagued Colombia until 1903, when Panamá, with United States backing, seceded from the republic.

The century-old boundary dispute with Peru over Leticia almost led to war in 1931, but a settlement was arranged through the League of Nations in 1934-35.

GOVERNMENT. Colombia's President, who appoints his own Cabinet, is elected every four years and is not eligible for immediate reelection. The Senate—upper house of Congress—has 63 members elected for four years by direct vote. The House of Representatives of 123 members is directly elected for two years. Congress was superseded temporarily by a national constituent assembly in 1954. All citizens over 21 are entitled to vote.

ECONOMIC CONDITIONS. Most of the people live by farming and cattle herding, but only a small part of the land is cultivated, and that by primitive means. Colombia's coffee, the nation's principal crop, is a mild variety that does not compete with Brazilian types. Cattle numbered 12,100,000 in Dec., 1956, according to U. S. government estimates.

The leading manufacturing industries are foodstuff processing, textiles and beverages. A new steel plant went into operation late in 1954; production in 1955 was 92,939 metric tons.

Leading exports in 1956 were coffee (77%), petroleum (13%) and bananas (5%). Leading customers were the U. S. (71%), Germany (7%), Netherlands Antilles (5%) and Sweden (3%); leading suppliers, the U. S. (62%), Germany (12%), Britain (3%) and France (3%).

NATURAL FEATURES AND RESOURCES. Through the western half of the country, three Andean ranges run north and south, merging into one at the Ecuadorean border. The eastern half is a low, jungle-covered plain, drained by spurs of the Amazon and Orinoco, inhabited mostly by uncivilized Indians. The fertile plateau and valley of the eastern range is the most densely populated part of the country.

Rich in minerals, Colombia has the third largest oil industry in Latin America (70 per cent controlled by U. S. interests). The country is also rich in platinum and has world-famous emerald mines at Muzo in the eastern Andes.

Forest products include vanilla, quinine, ipecac, sarsaparilla, gums and balsams, tanning agents, and dyewoods.

Costa Rica (Republic)

(República de Costa Rica)

Area: 19,695 square miles.

Population (est. 1957): 1,035,000 (1950: white and mestizo, 97.6%; Negro, 1.9%; Indian, .4%; Asiatic, .1%).

Density per square mile: 51.5.

President: José Figueres Ferrer.

Principal city (est. Dec. 31, 1956): San José, 99,747 (capital and only large city).

Monetary unit: Colón.

Language: Spanish.

Religion: Roman Catholic (state).

HISTORY AND GOVERNMENT. Costa Rica, discovered and probably named by Columbus in 1502, proclaimed its independence in 1821. Aside from boundary disputes with Panamá and Nicaragua, Costa Rica's modern history was comparatively tranquil until the spring of 1948.

Under the 1949 Constitution the President and one-house Congress of 45 members are popularly elected for terms of four years.

The army was abolished in 1950. There is a police force of 1,000 and 700 coast guardsmen.

ECONOMIC CONDITIONS. Coffee, bananas, abacá fiber, and cacao are the basic products of Costa Rican agriculture.

Leading customers in 1956 were the U. S. (48%), Germany (32%) and Canada (5%); leading suppliers, the U. S. (54%), Germany (9%) and Britain (6%). Leading exports were coffee (52%), bananas (34%), and cacao (5%); imports included tex-

tiles, machinery, vehicles, and petroleum products.

NATURAL FEATURES AND RESOURCES. Most of Costa Rica is tableland, from 3,000 to 6,000 feet above sea level. Cocos Island (10 sq. mi.), about 300 miles off the Pacific Coast, is under Costa Rican sovereignty; although it is mostly tropical jungle, it is of potential strategic importance in the defenses of the Panama Canal.

The mountain slopes yield such forest products as balsa, cedar, dyewood, mahogany and rosewood.

Cuba (Republic)

(República de Cuba)

Area: 44,217 square miles.

Population (est. 1957): 6,410,000 (white, 72.8%; mulatto, 14.5%; Negro, 12.4%; Asiatic, .3%).

Density per square mile: 131.8.

President: Fulgencio Batista y Zaldívar.

Principal cities (census 1953): Havana, 785,455 (capital, industrial center); Mariño, 219,378 (Havana suburb); Santiago de Cuba, 163,237 (seaport, mining); Camagüey, 110,388 (cattle, sugar); Santa Clara, 77,398 (tobacco).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. The history of Cuba, largest of the many Caribbean islands, began for white men with discovery by Columbus on his first voyage in 1492. It was a Spanish colony until 1898, except for brief British occupancy in 1762-63. Open war raged between Cuban rebels and Spanish troops from 1867 to 1878. Fighting broke out again in 1895, and when the United States threatened to intervene, Spain felt its national dignity had been wounded. Strained relations between Spain and the U. S. led to war when the U. S. battleship *Maine* was blown up in Havana harbor in Feb. 1898. At the end of the brief Spanish-American War, Spain gave up Cuba.

Until creation of the Cuban republic in 1902, the island was ruled by United States military authorities. For the first thirty-two years of the republic's life, the United States held the right to intervene in any crisis—a right which was invoked during insurrections which occurred in 1906, 1912 and 1917.

GOVERNMENT. Cuba's President is elected for a 4-year term by direct popular vote, in which women take part. The Cabinet, though named by the President, is responsible to the Congress—a 54-member Senate and a 130-member House, both elected for four years. Much Cuban lawmaking is done through presidential decree, reviewable by the Supreme Court.

ECONOMIC CONDITIONS. Half of the employed are engaged in agriculture, which normally accounts for more than 90 per cent of the exports. About two-thirds of the cultivated area is devoted to sugar cane. Other important crops are tobacco, coffee, cacao, fruits, vegetables, henequen, corn, pineapples, and rice.

Manufactured products include sugar, molasses, syrup, brandy, rum, alcohol, cigars, cigarettes, cigar boxes, sponges, cement, cordage, salt, dressed hides, dairy products, and canned goods. The leading industry is the processing of sugar cane and its products.

Leading exports in 1956 were sugar (74%), tobacco and products (6%) and molasses (5%). Leading customers were the U. S. (65%), Japan (6%) and Britain (4%); leading suppliers, the U. S. (75%), Netherlands Antilles (3%), western Germany (3%) and Britain (3%).

NATURAL FEATURES AND RESOURCES. Long, narrow Cuba has mountainous areas in the southeast, central area, and west, but the rest is flat or rolling. The coastline is indented by many large bays.

Rich mineral beds, mostly in the eastern province of Oriente, include iron, copper, manganese, chromium and nickel. Iron ore reserves are 90 per cent held by U. S. steel interests. Virtually all mineral exports go to the United States; they include nickel, copper ore, and manganese ore.

Czechoslovakia (Republic)

(Československá Republika)

Area: 49,354 square miles.

Population (est. 1957): 13,353,000 (1949: Czech, 67.0%; Slovak, 23.7% German, 3.2%; Magyar, 3.2%; Polish, Jewish and others, 2.9%).

Density per square mile: 267.9.

President: Antonín Novotný.

Premier: Viliam Široký.

Principal cities (est. 1948): Prague (Praha), 932,024 (capital, industrial center); Brunn (Brno), 277,196 (textiles); Ostrava (Moravská Ostrava), 183,794 (iron and steel products); (1947): Bratislava, 172,664 (Danube port); Pilsen (Plzeň), 118,152 (Skoda steel works).

Monetary unit: Koruna.

Languages: Czech (67%), Slovak (25%), German (4%), Hungarian, Ukrainian, Polish.

Religions (est. 1947): Roman Catholic, 77%; Czechoslovak Church, 8%; Protestant, 7%; Greek Orthodox, .5%; Jewish, .5%; others and no confession, 7%.

HISTORY AND GOVERNMENT. It was probably about the fifth century A.D. that the ancestors of the Czechs and Slovaks settled in the region of modern Czechoslovakia. Slovakia passed under Magyar

domination, but the Czechs founded the kingdom of Bohemia, which was among the most powerful in Europe for centuries. German encroachment began in the twelfth century and was furthered by the election in 1526 of a Hapsburg as Bohemian King. After the Czechs rebelled in 1618 and were defeated at the Battle of White Mountain in 1620, they were ruled for the next 300 years by the Hapsburgs as part of the Austro-Hungarian Empire. In World War I, Czech and Slovak patriots, notably Thomas G. Masaryk and Milan Stefanik, went abroad to promote support for Czech-Slovak independence, while Czechoslovak legions fought against the Central Powers. On Oct. 28, 1918, Czechoslovakia proclaimed itself a republic; shortly thereafter Masaryk was unanimously elected first President.

Between World Wars I and II, Czechoslovakia supported the League of Nations, formed the Little Entente with Yugoslavia and Rumania, and co-operated closely with France. President Masaryk was succeeded by Dr. Eduard Beneš in 1935.

Meanwhile, Czechoslovakia's German minority, led by Konrad Henlein, began demanding autonomy.

At the Munich conference on Sept. 30, 1938, France and Britain agreed that the Nazis could take the Czech Sudetenland on the German border. Dr. Beneš resigned on October 5, and Czechoslovakia became a federal union in the German orbit. The Poles, meantime, seized Czechoslovakia's Teschen area, and Hungary had taken areas in Slovakia and Ruthenia. In March, 1939, the Nazis set up Slovakia as a puppet state, declared Bohemia and Moravia to be Nazi protectorates, and gave Hungary the remainder of Ruthenia. Both Slovakia and Bohemia-Moravia were occupied by German troops. Beneš organized a government-in-exile in London in 1940.

Soon after the government returned to Czechoslovakia in April 1945, Ruthenia, the easternmost province, was ceded to Russia. On July 3, 1946, Communist Klement Gottwald formed a six-party coalition Cabinet. Amid increasing pressure from Moscow, Gottwald's Cabinet remained in office until a bloodless coup d'état of Feb. 23-25, 1948, when the Communists seized complete control. President Beneš resigned June 7 following parliamentary elections in which the Communists and their allies were unopposed. Parliament then elected Gottwald to the presidency.

Czechoslovakia's Soviet-type Constitution makes the 300-member unicameral Parliament the supreme organ of the state. The government is headed by the President, elected by Parliament for a seven-year term. The Prime Minister and his

Cabinet are appointed by the President but responsible to Parliament.

ECONOMIC CONDITIONS. Nationalization of all enterprises with more than fifty employees as well as concerns of any size operating in key industries was completed between 1945 and 1948. Distribution of large estates had already been accomplished by the 1919 Land Reform Law. Total collectivization of agriculture was the professed aim of the Communist regime.

Sugar beets, wheat, corn, and high-grade barley and hops for beer brewing are cultivated in the low-lying areas. In more elevated regions, the cultivation of potatoes, rye, and oats predominates. Higher lands are also used for growing fodder crops or for grazing. In 1956 there were 4,220,000 cattle, 1,000,000 sheep and (Dec. 1954) 4,771,000 hogs.

Abundance of coal and presence of iron ore give the country a big metallurgical industry. The Skoda steel works at Pilsen are among the largest in Europe.

Other industries are glass, porcelain, and pottery making, while large forest areas provide raw material for the timber, paper, and cellulose industries. Also highly developed are the textile industries, including cotton, wool, flax, and jute production, and the shoe industry. The famous Bat'a shoe factories are at Zlin.

Foreign trade is a state monopoly managed by government corporations.

NATURAL FEATURES AND RESOURCES. Czechoslovakia lies athwart the great central European watershed between the Baltic, Black, and North Seas. Mountains form several of its boundaries. Many of the valleys are made fertile by the Danube, Elbe, and Vltava (Moldau) rivers and their tributaries.

Most important of Czechoslovakia's varied minerals are pit coal and lignite, with the principal coal fields in the Ostrava-Karviná area, connected with the Polish fields of Upper Silesia.

Production of iron ore in 1956 was about 2,100,000 tons; much ore is imported to meet the demands of Czechoslovakia's flourishing iron and steel industry. Excellent porcelain raw materials, particularly kaolin, are obtained in western Bohemia and southern Moravia. Other minerals are antimony, gold, magnesite, oil, uranium, silver, and zinc.

Denmark (Kingdom)

(Kongeriget Danmark)

Area: 16,577 square miles.
Population (est. Jan. 1, 1957): 4,475,000 (almost entirely Danish).
Density per square mile: 270.0.

Sovereign: King Frederick IX.

Prime Minister: H. C. Hansen.

Principal cities (est. 1957): Copenhagen, including suburbs, 950,700 (capital); Århus, 118,700 (shipbuilding); Odense, 107,400 (meat, dairy products); Ålborg, 84,200 (seaport).

Monetary unit: Krone.

Language: Danish.

Religion: Evangelical Lutheran (state).

HISTORY AND GOVERNMENT: (See *World Politics* section).

RULER. Frederick IX, of the house of Schleswig-Holstein-Sonderburg-Glücksburg, born March 11, 1899, became King April 20, 1947. In 1935 he married Princess Ingrid of Sweden, by whom he has three daughters: Margrethe (heiress apparent, born April 16, 1940), Benedikte (born 1944), Anne-Marie (b. 1946).

ECONOMIC CONDITIONS. Livestock in July, 1956 included 3,167,000 cattle, 4,630,000 hogs, 24,475,000 poultry.

The largest industries are food-processing and iron and metal. Others include chemicals and pharmaceuticals, wood and paper, clothing, textiles, machinery, beverages, and leather.

Leading suppliers in 1956 were Great Britain (24%), western Germany (20%), and the U. S. (8%). Chief customers were Great Britain (31%), western Germany (20%), the U. S. (7%). Leading exports were meat and meat products (27%), dairy products, largely butter and eggs (24%), machinery (12%) and live meat animals (6%). Leading imports: coal, coke, petroleum and petroleum products, machinery, vehicles, and textiles.

NATURAL FEATURES AND RESOURCES. Denmark, only three miles from Sweden at the closest point, consists of the Jutland peninsula and the islands in the Baltic. The largest islands are Zealand, the site of Copenhagen; Fünen; and far to the east, Bornholm. The narrow waters to the north are called Skagerrak; and to the east, Kattegat.

The terrain of the whole kingdom is low but not flat. Its highest point is about 500 feet, and there are many lakes, ponds and short rivers. Sand dunes line the western Jutland coast almost without a break.

Mineral resources are negligible. Large quantities of coal and coke must be imported. Peat bogs supply an important source of fuel.

The fishing industry, centered at Copenhagen but carried on also in the shallow fiords and in the deeper waters of the Baltic, North Sea and Skagerrak, is a basic part of the Danish economy.

Outlying Territories

FAEROE ISLANDS—Status: Autonomous part of Denmark.

Area: 540 square miles.
 Population (est. 1955): 34,000.
 Capital: Thorshavn (pop. 1950: 5,607).
 Governor general: C. A. Vagn-Hansen.
 Principal products: cod, whale oil, cod liver oil, wool, fertilizers, skins and leather.

This group of 21 islands, lying in the North Atlantic about 200 miles northwest of the Shetland Islands, joined Denmark in 1386 and has since been part of the Danish kingdom. The islands were occupied by British troops during World War II, after the German occupation of Denmark. The principal pursuits are fishing and sheep grazing. The Faeroes have home rule under a bill enacted in 1948; they also have two representatives in the Danish Folketing.

GREENLAND—Status: Integral part of Kingdom of Denmark.

Area: 839,782 square miles (almost 85 per cent glacier).

Population (census 1951): 24,159 (native except for 1,269 Europeans).

Capital: Godthaab (second governor's seat, Godhavn).

Governor general: Poul Hugo Lundsteen.
 Foreign trade (1955): exports, 49,370,000 kr. (75% to Denmark); imports, 78,256,000 kr. (83% from Denmark). Chief exports: cryolite (41,792 metric tons), fish and products, hides and skins.

Greenland, the world's largest island, was colonized in 985-86 by Eric the Red. Danish sovereignty, which covered only the west coast, was extended over the whole island in 1917. In 1941 the United States signed an agreement with the Danish minister in Washington, placing it under U. S. protection during World War II but maintaining Danish sovereignty. A definitive agreement for the joint defense of Greenland within the framework of NATO was signed on April 27, 1951. A large U. S. air base at Thule in the far north was completed in 1953.

Under 1953 amendments to the Danish Constitution, Greenland is part of Denmark and has two representatives in the Danish Folketing. There is a popularly elected council.

Greenland is the world's only source of natural cryolite, important in the manufacture of aluminum. Large deposits of lead, zinc and wolfram were found on the eastern coast of Greenland after World War II.

Dominican Republic (República Dominicana)

Area: 18,703 square miles.
 Population (est. 1957): 2,698,000 (1950: mestizo and mulatto, 60%; white, 23%; Negro, 12%).

Density per square mile: 139.4.
 President: Héctor Trujillo y Molina.

Principal cities (census 1950): Ciudad Trujillo, 181,553 (capital; sugar); Santiago de los Caballeros, 56,558 (tobacco); San Pedro de Macoris, 19,876 (sugar port); Puerto Plata, 14,843 (seaport).

Monetary unit: Dominican peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. The Dominican Republic (formerly San Domingo) occupies the eastern two-thirds of the island which Columbus named La Española (now Hispaniola) when he discovered it on his first voyage in 1492. The other third is occupied by the republic of Haiti. The capital, Ciudad Trujillo, founded in 1496, is the oldest white settlement in the Western Hemisphere.

The Dominican Republic was variously under Spanish, French and Haitian domination until it established its independence in 1865 and then plunged into an unstable political history. U. S. Marines occupied it from 1916 to 1924, when a new Constitution was adopted. In 1930, Rafael Leónidas Trujillo y Molina, an army general, was elected President.

ECONOMIC CONDITIONS. Primarily agricultural, the country produces sugar, coffee, cacao, tobacco, bananas, rice, corn, cassava, beans, and sweet potatoes. Cattle raising is of growing importance.

Sugar refining is the only important industry, although several new industries have been established in recent years.

Leading exports in 1956 were sugar (43%), coffee (26%), and cacao (7%). Chief customers were the U. S. (47%) and Britain (25%); leading suppliers, the U. S. (65%) and Western Germany (6%). The main imports are cotton goods, iron and steel products, chemicals and machinery.

NATURAL FEATURES. Crossed from northwest to southeast by a mountain range with maximum elevations exceeding 10,000 feet, the country has fertile, well-watered land on the northeast side, where nearly two-thirds of the population lives. The southwest part is arid and with poor soil except around Ciudad Trujillo. The country has many good harbors.

Ecuador (Republic) (República del Ecuador)

Area: 105,743 square miles.
 Population (est. 1957): 3,890,000 (1942: mestizo, 41%; Indian, 39%; white, 10%; Negro, 5%; others, 5%).

Density per square mile: 35.7.

President: Camillo Ponce Enriquez.

Principal cities (census 1950): Guayaquil, 258,966 (chief port); Quito, 209,932 (capital); Cuenca, 39,983 (trading center); Ambato, 31,312 (commercial center).

Monetary unit: Sucre.

Languages: Spanish, Quéchuá.

Religion: Roman Catholic.

HISTORY. Mostly forested and mountainous and a little larger than Colorado, Ecuador has a long history replete with the forceful rule of dictators. The Spanish under Francisco Pizarro conquered the land in 1532 by defeating the Inca Atahualpa. The first revolt against Spain occurred in 1809, but the victory was not complete until the Battle of Pichincha on May 24, 1822. Ecuador then joined Venezuela and Colombia in a confederacy founded by Simón Bolívar and known as Colombia, but withdrew amicably and became independent in 1830. The country's subsequent history has been largely one of dictatorships.

For more than a hundred years, Ecuador disputed its boundary with Peru, frequently resorting to arms. After hostilities started again in 1941, both nations submitted to mediation, and in 1944 Ecuador lost most of the disputed area. The dispute broke out anew in 1951.

GOVERNMENT. Under the 1948 (16th) Constitution, Ecuador elects a President for four years by direct vote, and he is ineligible for further service until at least one term intervenes. The Congress is bicameral, with a Senate and Chamber of Deputies.

ECONOMIC CONDITIONS. Although agriculture is the basis of Ecuador's economy, less than 12,000,000 acres are devoted to it. Cacao, the chief crop, is grown in coastal regions and lower river valleys. The plateaus and mountain valleys are used for grazing and dairying, and raising cereals and potatoes. After textiles, one of Ecuador's main industries is the manufacture of Panama hats, made of Toquilla straw.

Leading exports in 1956 were bananas (39%), coffee (31%), and cacao (19%). Leading customers were the U. S. (60%), Germany (12%), and Colombia (5%); leading suppliers, the U. S. (52%), Germany (12%), and Belgium (7%).

NATURAL FEATURES AND RESOURCES. Two high and parallel ranges of the Andes, traversing Ecuador from north to south, are topped by tall volcanic peaks.

Ecuador produces gold, silver, copper, lead, and petroleum. The country is the world's chief source of light, strong balsa wood.

Egyptian, 95.4%; Arabian, 1.7%; Greek, .6%; others, 2.3%).

Density per square mile: 60.6.

President: Gamal Abdel Nasser.

Principal cities (est. 1952): Cairo, 2,367,900 (capital); Alexandria, 1,070,000 (chief port); Port Said, 186,300 (Suez Canal terminus); Tanta, 147,800 (railroad center, Nile delta).

Monetary unit: Egyptian pound (£E).

Language: Arabic.

Religions: Moslem, 91%; Christian (mostly Copt and Greek Orthodox), 8%, others, 1 %.

HISTORY AND GOVERNMENT. Egyptian history dates back to about 4000 B.C. when the kingdoms of upper and lower Egypt, already highly civilized, were united. Egypt's "Golden Age" coincided with the eighteenth and nineteenth dynasties (sixteenth to thirteenth centuries B.C.), during which the empire was established. Persia conquered Egypt in 525 B.C.; Alexander the Great subdued it in 332 B.C., and then the dynasty of the Ptolemies ruled the land until 30 B.C., when Cleopatra, last of the line, committed suicide and Egypt became a Roman province. From 641 to 1517 the Arab Caliphs ruled Egypt, and then the Turks took it and made it part of their Ottoman Empire. Napoleon's armies occupied the country from 1798 to 1801. In 1805, Mohammed Ali, leader of a band of Albanian soldiers, became Pasha of Egypt. After completion of the Suez Canal in 1869, both the French and British took increasing interest in Egypt.

British troops occupied Egypt in 1882, and British resident agents became its actual administrators, though it remained under nominal Turkish sovereignty. On Dec. 18, 1914, this fiction was ended and Egypt became a British protectorate.

Pressure by Egyptian nationalists forced Britain to declare Egypt an independent, sovereign state on Feb. 28, 1922, although the British reserved rights for the protection of the Suez Canal and the defense of Egypt. On Aug. 26, 1936, by an Anglo-Egyptian treaty of alliance, all British troops and officials were to be withdrawn, except from the Suez Canal zone. When World War II started, Egypt remained neutral. British imperial troops finally ended the Nazi threat to Suez in 1942 in the battle of El Alamein, which took place west of Alexandria.

In Oct., 1951, Egypt abrogated the 1936 treaty and the 1899 Anglo-Egyptian condominium of the Sudan. (See Sudan.) Rioting and attacks on British troops in the Suez Canal zone followed, reaching a climax in Jan., 1952. The army, led by Gen. Mohammed Naguib, seized power on July 23, 1952. On July 26, King Farouk abdicated in favor of his infant son. Naguib took over the premiership on Sept. 7, 1952, and promised far-reaching reforms. The

Egypt (Republic)

(Misr)

Egypt and Syria united in February, 1958, to form the United Arab Republic.

Area: 386,100 square miles.

Population (est. 1957): 24,020,000 (1944:

monarchy was abolished and a republic proclaimed on June 18, 1953, with Naguib holding the posts of both provisional President and Premier. He relinquished the latter post on April 18, 1954, to Gamal Abdel Nasser, leader of the ruling military junta. Naguib was deposed by the Cabinet and junta on Nov. 14, 1954.

Nasser was confirmed as President in a popular referendum on June 23, 1956. For Suez Canal seizure and subsequent events, see below and *World Politics* section.)

The 1956 Constitution provides for a presidential type of republican government. Legislative power is vested in the National Assembly, elected for five years. Executive power is vested in the President, who serves for six years and is nominated by the Assembly and confirmed (or disapproved) by the people in a referendum. He is assisted by a Cabinet of ministers. Political parties are suspended until such time as a law is passed authorizing them. All persons over the age of eighteen have the right to vote.

SOCIAL AND ECONOMIC CONDITIONS.

The majority of the people are Sunni Moslems. The Christians are mainly Copts with an admixture of Armenian, Syrian, and Maronite sects. The population divides generally into fellahin (peasantry) and townspeople of the same blood, the Beduin or nomad Arabs of the desert, and the Berbers, who occupy the Nile valley between Aswan and Dongola. The foreigners are chiefly Greeks (whose main center is Alexandria), French, British and Italians. The density of population in the small inhabited area in the Nile valley and delta (about 13,600 sq. mi.) is far greater than that of either the Netherlands or Belgium.

Agriculture is the chief industry, engaging more than half the population. Only about 3.5 per cent of the total area is arable, and only about 6,000,000 acres are actually under cultivation, almost entirely in the Nile valley and delta. More than half the cultivated area comprises farms of less than 20 acres. Irrigation is indispensable to agriculture; the Aswan reservoir above the first cataract of the Nile holds up to 5,500,000,000 cubic meters of water and the reservoir of Gebel Aulla, in the Sudan, 2,000,000,000 cubic meters. In the delta and in middle Egypt, where perennial or canal irrigation is possible, two or three crops a year can be grown. The chief cash crop is cotton, of which Egypt is one of the world's leading producers.

Industry includes sugar refining, cotton spinning, cement manufacture, milling and battery, soap and perfume making. The sugar Company of Egypt holds a monopoly in the sugar refining industry.

In 1956, Egypt's chief customers were Czechoslovakia (15%), Japan (7%), western Germany (7%), and the Sudan (6%); leading suppliers, the United States (13%), Britain (12%), western Germany (11%), and Italy (6%). Leading exports were raw cotton (70%) and rice (6%).

Imports included wheat, petroleum, fertilizers, iron and steel products, textiles, and machinery and vehicles.

Navigable throughout its course in Egypt, the Nile is used largely as a means of cheap transport for heavy goods. The principal port is Alexandria.

NATURAL FEATURES AND RESOURCES.

Egypt, at the northeast corner of Africa, is a very rough square, with the historic Nile flowing northward through its eastern third. On either side of the Nile valley are desert plateaus, spotted with oases. In the north, toward the Mediterranean, plateaus are low, while south of Cairo they rise to a maximum of 1,015 feet above sea level. At the head of the Red Sea, at the northeast corner of Egypt, is the triangular Sinai peninsula, between the Suez Canal and Israel.

The Nile delta starts 100 miles south of the Mediterranean and fans out to a sea front of 155 miles between Alexandria and Port Said. From Cairo north, the Nile branches into many streams, the principal of which are the Damietta and the Rosetta, joined by a network of canals.

The most important minerals are manganese ore, phosphate, and petroleum. Gold, iron ochres, nickel, sodium carbonate, sulfate talc, and tungsten also are mined.

Except for a narrow belt on the Mediterranean, Egypt lies in an almost rainless area, in which high daytime temperatures fall quickly at night.

SUEZ CANAL. The Suez Canal, in Egyptian territory between the Arabian Desert and the Sinai peninsula, is an artificial waterway about 100 miles long between Port Said on the Mediterranean and Suez on the Red Sea. Construction work, directed by the French engineer Ferdinand de Lesseps, was begun April 25, 1859, and the canal was opened Nov. 17, 1869. The cost was 432,807,882 francs. The concession is held by an Egyptian joint stock company, *Compagnie Universelle du Canal Maritime de Suez*, in which the British government holds 353,504 out of a total of 800,000 shares. The concession was to expire Nov. 17, 1968, but the company was nationalized July 26, 1956, by unilateral action of the Egyptian government. As a result of hostilities the canal was blocked between Nov., 1956, and March, 1957. In July, 1958, an agreement was finally signed in Geneva between the United Arab Republic and the shareholders of the former Suez Canal Company. Compensation was arranged for

the period of twelve years which was still to have elapsed between 1956 and the end of the Company's 99-year concession in 1968.

Estonia

Area: 17,400 square miles.

Population (est. 1956): 1,100,000 (1940: Estonians, 88%; Russians, 9%; Germans [Balts], 1%; others, 2%).

Density per square mile: 63.2.

Principal cities (est. 1938): Tallinn, 146,-400 (capital); Tartu, 60,100 (university town); Narva, 24,200 (seaport).

Language: Estonian (Finno-Ugrian).

Religions: Lutheran, 78%; Greek Orthodox, 19%; others, 3%.

Born out of World War I, this small Baltic state enjoyed two short decades of independence before it was absorbed again by its powerful neighbor, Russia. In the thirteenth century, the Estonians had been conquered by the Teutonic Knights of Germany, who reduced them to serfdom. In 1521, the Swedes took over, and the power of the German (Balt) landowning class was curbed somewhat. But after 1721, when Russia succeeded Sweden as the ruling power, the Estonians were subjected to a double bondage—the Balts and the tsarist officials. The oppression lasted until the closing months of World War I, when Estonia finally achieved independence.

Shortly after the start of World War II, the nation was occupied by Russian troops and was incorporated as the sixteenth republic of the U.S.S.R. in 1940. Germany occupied the nation from 1941 to 1944, when it was retaken by the Russians. Most of the nations of the world, including the United States and Great Britain, have not recognized the Soviet incorporation of Estonia.

Ethiopia (Kingdom)

(Abyssinia)

Area: 457,142 square miles.*

Population (est. 1956): 20,000,000* (Abyssinian [Amhara], 20%; Galla, 50%; others, 30%).

Density per square mile: 35.0.*

Ruler: Emperor Haile Selassie I.

Prime Minister: Bitwoded Makonnen Endalkatchau.

Principal cities (est. 1951): Addis Ababa, 401,915 (capital); Asmara, 117,000 (capital, Eritrea); Harar, 45,000 (coffee); Dessie, 35,000 (grain center); Dire Dawa, 30,000 (railway workshops).

Monetary unit: Ethiopian paper dollar.

Languages: Amharic, Arabic.

Religions: Copt (Christian), Moslem.

* Including Eritrea.

HISTORY AND GOVERNMENT. (See *World Politics* section.)

ECONOMIC CONDITIONS. Ethiopia is generally fertile, predominantly agricultural and pastoral, with many regions yielding two crops a year. The chief crops are maize, wheat, barley, rye, cotton, sugarcane, millet, hemp, vegetables, coffee, and teff (the common bread grain). The country's inadequate transport system, however, makes crop growing largely a local industry.

The country grazes several million cattle, and many goats and sheep. Horses and mules are bred extensively as pack animals and mounts. There is little manufacturing except for small native industry, although the Italians built some industrial plants during their five-year occupation.

Chief exports in 1954-55 were coffee (56%), hides and skins (10%), and oil seeds (11%). Leading customers were the United States (25%), Aden (21%), and Italy (19%); leading suppliers, Italy (15%), India (14%), and the United States (13%). Major imports were cotton piece goods, machinery, sugar, and salt.

NATURAL FEATURES AND RESOURCES. Over its main plateau-land, Ethiopia has several high mountains. The Blue Nile, or Abbai, rises in the northwest and flows in a great semicircle east, south, and north west before entering Sudan. Its chief reservoir, Lake Tana, lies in the northwestern part of the plateau.

Gold, produced from placer mines worked by natives in the south and west, is Ethiopia's main mineral. Platinum also is mined in fair commercial quantities. Other minerals are rock salt, cinnabar, copper, iron, mercury, mica, potash, and sulfur. Oil deposits are believed to exist, and all drilling rights have been sold to the Sinclair Refining Company of the United States.

ERITREA—Status: Federated with Ethiopia.

Area: 47,875 sq. mi.

Population (est. 1955): 1,104,000.

Capital: Asmara (population: 117,000).

Sovereign: Haile Selassie I.

Chief Executive: Fitaurari Asfaha Wolde mikel.

Agricultural products: coffee, barley, tobacco, sesame, hides, skins.

Minerals: gold, salt, potassium salts.

Sea product: pearls.

The first Italian inroad into Eritrea came in 1870 when the port of Assab and adjacent territory were bought from a native sultan; with British approval, Italian troops occupied Massaua in 1885. By a decree of Jan. 1, 1890, Italian possessions along the Red Sea were united into the colony of Eritrea.

As an autonomous, self-governing area Eritrea has its own elected assembly which selects the chief executive. It is also represented in the Ethiopian Parliament.

Matters reserved to the Ethiopian government include defense, foreign affairs, foreign trade, finance, and communications.

The principal native elements are the Ethiopians and Tigrés, who have close ethnic, linguistic, and religious ties with peoples in neighboring Ethiopia. Irrigation is essential in the coastal plains, and agriculture is practiced largely on the interior plateau (average elevation: 6,500 ft.).

Finland (Republic)

(Suomen Tasavalta)

Area: 130,119 square miles.

Population (est. 1957): 4,333,000 (Finnish, 90%; Swedish, 10%).

Density per square mile: 33.2.

President: Urho Kekkonen.

Premier: Veino J. Sukselainen.

Principal cities (est. Jan. 1, 1957): Helsinki, 428,000 (capital); Tampere, 115,700 (textiles, paper); Turku (Åbo), 114,400 (seaport, shipbuilding); Lahti, 60,500 (glass, lumber); Oulu, 49,300 (seaport, shipbuilding).

Monetary unit: Markka (FM).

Languages: Finnish, Swedish.

Religions (1949): Evangelical Lutheran, 97%, Greek Orthodox, 2%; others, 1%.

HISTORY AND GOVERNMENT: (See *World Politics* section).

ECONOMIC CONDITIONS. The chief crops are oats, barley, rye, and potatoes. Grazing lands are extensive. In 1956, there were 1,827,070 cattle, 565,738 sheep, 434,584 hogs and 151,701 reindeer.

The leading Finnish manufactures are wood and paper (about one-third the total value), food, luxury items, machinery and textiles. With the cession of the Karelian isthmus and the city of Viipuri to the U.S.S.R., Finland lost valuable manufacturing areas. Helsinki is the principal industrial center.

Chief exports in 1956 were wood and wood products (32%), paper (25%) and wood pulp (21%). Leading customers were Britain (21%), U.S.S.R. (19%), western Germany (9%) and the U. S. (7%); leading suppliers, Britain (17%), U.S.S.R. (12%), western Germany (12%), and the U. S. (7%).

NATURAL FEATURES AND RESOURCES. Finland stretches 700 miles from the Gulf of Finland on the south to Soviet Petsamo, north of the Arctic Circle. Off the southwest coast are the Åland Islands (approximately 300), controlling the entrance to the Gulf of Bothnia. Finland has more than 60,000 lakes. Of the few rivers, only the Oulu (Uleå) is navigable to any important extent.

Finland has no coal or oil, and many of its ore deposits are remote from transportation. Finland's sulfide ore is 4 per-

cent copper, 26 per cent sulfur and 27 per cent iron, with some zinc, cobalt, gold, and silver. Limestone, soapstone and red granite deposits are extensive, and uranium deposits are believed to exist. Wood and peat are the only natural fuels.

More than a third of Finland is covered with high quality timber, the nation's richest natural resource.

The Swedish-populated Åland islands (581 sq. mi.) have an autonomous status under a law passed in 1951.

France (Republic)

(République Française)

Area: 212,736 square miles.

Population (est. 1957): 44,000,000 (1954: French, 96.6%; others, 3.4%).

Density per square mile: 205.8.

President: René Coty.

Premier: Charles de Gaulle.

Principal cities (census 1954): Paris, 2,850,189 (capital); Marseilles, 661,492 (chief port); Lyons, 471,270 (silk, metal manufacture); Toulouse, 268,863 (tobacco; commercial center); Bordeaux, 257,946 (wine; seaport); Nice, 244,360 (resort center); Nantes, 222,790 (manufacturing).

Monetary unit: Franc.

Religion (est.): Roman Catholic, 97.5%; Protestant and others, 2.5%.

HISTORY AND GOVERNMENT: (See *World Politics* section).

Religion. The predominant faith is Roman Catholicism, but Church and State were separated in 1905. Diplomatic relations with the Vatican were resumed in 1921, and lesser church property was returned to diocesan associations in 1924.

Population. The people are not homogeneous, varying from section to section. During the inter-bellum period, the population remained almost static, with an increase of only 72,133 from 1931 to 1936 and a decrease of 3.3 per cent from 1936 to 1946. The period between 1946 and 1954 showed an increase of 5.6 per cent. France normally is almost self-sufficient in basic foodstuffs and leads the world in wine production.

Silk culture once thrived in the lower Rhône valley, but production fell sharply between wars. Milk, butter, and cheese are important as exports. Livestock in Oct. 1956 included 17,572,000 cattle, 8,216,000 sheep, and 2,161,000 hogs.

Industry. Principal industrial areas are Paris, Artois, Lower Seine and Lyon; the textile industry is concentrated in the north. Leading manufactures are iron, steel, chemicals, textiles, automobiles, machinery, and beet sugar.

Principal suppliers in 1956 were the U. S. (12%), western Germany (10%), Algeria (7%), Britain (5%), and Belgium

FRANCE AND THE FRENCH UNION

Political subdivision	Area (sq. mi.)	Population	Political subdivision	Area (sq. mi.)	Population
France	212,736	43,787,000 ⁷	Sénégal	80,617	2,108,000 ⁵
Africa			Madagascar and dependencies	230,165	4,740,000 ⁵
Algeria	846,124	9,531,000 ⁴	Réunion	969	274,370 ⁴
Cameroun	166,793	3,116,000 ⁴	Togo	21,135	1,070,000 ⁵
Comoro archipelago	832	170,046 ⁴	Western Hemisphere		
French Equatorial Africa	969,111	4,537,000 ⁵	French Guiana	35,135	27,863
Chad	495,752	2,384,000 ⁵	Guadeloupe	687	229,120 ⁴
Gabon	103,089	392,000 ⁵	Martinique	425	239,130 ⁴
Middle Congo	132,046	698,000 ⁵	St. Pierre and Miquelon	93	4,606 ¹
Ubangi-Shari	238,224	1,063,000 ⁵	Asia		
French Somaliland	8,494	64,000 ⁵	Laos	91,500	1,425,000 ⁵
French West Africa	1,831,079	17,676,000 ⁵	Oceania		
Dahomey	43,784	1,565,000 ⁵	French Pacific Settle- ments	1,545	63,000 ⁵
French Guinea*	106,216	2,261,000 ⁵	New Caledonia and dependencies	7,654	63,000 ⁵
French Sudan	460,540	3,467,000 ⁵	New Hebrides	5,700	53,000 ⁵
Haute Volta	105,946	3,137,000 ⁵			
Ivory Coast	123,282	2,390,000 ⁵			
Mauritania	416,061	567,000 ⁵			
Niger	494,633	2,181,000 ⁵			

(Note: Each population figure is followed by a superior number denoting the year of estimate or census: ¹ for 1957, ² for 1956, ³ for 1955, ⁴ for 1954, etc.

* Voted in Sept. 1958 not to remain in the French Union.

(5%); leading customers, Algeria (13%), western Germany (10%), Belgium (8%), Switzerland (7%), and Britain (6%). Leading exports were metals and manufactures, textiles and agricultural and food products.

NATURAL FEATURES AND RESOURCES.

France is second in size to Russia among Europe's nations. In the Alps near the Italian and Swiss borders is France's highest point—Mont Blanc, 15,781 feet. The forest-covered Vosges Mountains are in the northeast and the Pyrenees are along the Spanish border. Except for extreme northern France, which is part of the Flanders plain, the country may be described as four river basins and a plateau. Three of the streams flow west—the Seine into the English Channel, the Loire into the Atlantic, and the Garonne into the Bay of Biscay. The Rhône flows south into the Mediterranean. For about a hundred miles, the Rhine is France's eastern border. West of the Rhône and northeast of the Garonne lies the Central Plateau, covering about 15 per cent of France's area, and rising to a maximum elevation of 6,188 feet. In the Mediterranean, 115 miles east-southeast of Nice, is Corsica, the island of Napoleon's birth, with an area of 3,367 square miles.

Minerals. French coalfields, most extensive in the northeast, ordinarily supply about 70 per cent of domestic needs. Lorraine, Anjou and Normandy have valuable iron ore deposits. Provence has bauxite. Alsace has potash and oil. Limousin has kaolin, zinc, lead and tar.

Forests and Fisheries. France produces forest products, including resin, turpentine, timber, and nuts. The annual fish catch is among the largest in Europe.

Andorra

This 191-square mile autonomous and semi-independent state on the Franco-Spanish border has been under the joint suzerainty of the French State and the Spanish bishops of Urgel since 1278. It is a cluster of mountain valleys inhabited by about 6,500 hardy and traditionally independent people whose principal pursuit is the tending of flocks. Catalán is the language spoken. A Council General of 24 members, elected for four years by the heads of families, choose the First Syndic, the supreme executive authority.

FRENCH UNION

AFRICA

Algeria (Part of Metropolitan France)

(L'Algérie)

Principal cities (census 1954): Algiers, 355,040 (capital); Oran, 291,812 (seaport); Constantine, 143,334 (trading center); Bône, 112,010 (seaport, phosphates).

Monetary unit: French franc.
Languages: Arabic, French.

Religions: Moslem (natives), Roman Catholic, Jewish.

HISTORY. (See *World Politics* section.)

ECONOMIC CONDITIONS. Approximately 86 per cent of the population is native, 12 per cent French, and 2 per cent other European. The native population is Berber, with Arab admixture physically assimilated.

The area under cultivation is about 15,000,000 acres, more than 30 per cent of which is owned by European farmers, chiefly in the fertile coastlands. The principal crops are wheat, barley and oats. Algeria is a leading wine producer, with almost 7 per cent of the cultivated area devoted to vines. Tobacco, corn, vegetables, flax, silk, figs, and dates are also produced. Much of the area is more adapted to grazing than to agriculture. In 1954 there were 6,008,000 sheep, 893,000 cattle; (1953) 3,231,000 goats and 183,000 camels.

European industries include those dependent on crops, such as distilling and oil and flour milling, as well as the making of leather, tobacco and matches. There are also small native industries, particularly the traditional carpet weaving.

In 1956 chief exports were wine (38%), iron ore (6%), and citrus fruits (6%); chief imports, petroleum and products (6%), machinery and apparatus (6%), and motor vehicles (5%). France took 76% of the exports and supplied 80% of the imports.

NATURAL FEATURES AND RESOURCES. Low plains cover small areas near the coast, but 68 per cent of Algeria is a plateau between 2,625 and 5,250 feet above sea level. The region between the Sahara and the Mediterranean reaches a high point of 7,641 feet.

Algeria is a leading producer of phosphates. Iron ore (55% metal content) is found near the Tunisian frontier and on the Oran coast. Zinc, lead, and salt are also important minerals; and small amounts of oil and coal are produced.

CAMEROON (FRENCH CAMEROONS)—Status: U. N. trust territory.

Capital: Yaoundé (population 30,000).

High commissioner: Pierre Mesmer.

Premier: André-Marie M'Bida.

Foreign trade (1956): exports, 13,150,000,000 fr. C.F.A.*; imports, 16,669,000,000 fr. C.F.A. Chief exports: cacao (35%), coffee, bananas, timber, cotton.

Agricultural products: cacao (exports 1956: 30,893 metric tons), coffee, bananas, cotton, rubber, millet, sweet potatoes.

Minerals: tin, gold, rutile.

Forest product: timber.

* Colonies Françaises d'Afrique, equal to 2 metropolitan francs.

In 1884 the Cameroons became a German colony (Kamerun), and after the

conclusion of World War I the region was divided as a League mandate between Britain and France, four-fifths of the area going to France. Placed under French trusteeship by the United Nations in 1946, the area has political and financial autonomy under a French High Commissioner, who under the 1957 self-government statute is assisted by a cabinet headed by the premier and responsible to the popularly elected territorial assembly. The chief port is Douala; the administrative center, Yaoundé.

FRENCH EQUATORIAL AFRICA—Status: Group of overseas territories.

High commissioner: Paul Chauvet.

Capital: Brazzaville (pop. 1950: 84,090).

Foreign trade (1956): exports, 14,135,000,000 fr. C.F.A. (64% to France); imports, 20,527,000,000 fr. C.F.A. (57% from France). Chief exports: timber (36%), cotton (33%), coffee, diamonds, peanuts.

Agricultural products: cotton (1956 exports: 37,472 metric tons), coffee, peanuts, cacao, palm kernels and oil.

Minerals: gold, diamonds, lead, iron ore.

Forest products: timber, rubber, copal gum, wax.

This area, an early slaving center, was first settled by France in 1839; French hegemony was subsequently extended by exploration and conquest of the native tribes. The territories declared for Free France following the armistice of June 1940, and Brazzaville became capital of De Gaulle's Free French movement.

The high commissioner co-ordinates the administration of the area with the aid of an elected Grand Council. Each of the four territories (Gabon, Middle Congo, Ubangi-Shari, Chad) has a governor, an executive council and a popularly elected territorial assembly. There were, in 1951, 23,403 Europeans; most of the Africans are Negroes. There are Arab and Fulani settlements in the Chad region, and several Moslem sultanates. Natural resources, both forest and mineral, are vast but relatively unexploited. Once economically dependent on forest products, the country developed after World War II as a producer of cotton, diamonds and gold. The area is capable of exporting large quantities of hard okoumé wood.

FRENCH SOMALILAND—Status: Overseas territory.

Capital: Djibouti (population 31,855).

Governor: René Petitbon.

Foreign trade (1955): domestic exports, 253,000,000 Djibouti fr.*; ship stores, 2,727,000,000 Djibouti fr.; imports (excluding ship stores), 2,324,000,000 Djibouti fr. Chief exports: salt, hides.

Mineral: salt.

* 1 Djibouti franc = 1.64 metropolitan francs.

French Somaliland, at the southern entrance to the Red Sea, was acquired by

France between 1883 and 1887 by treaties with the Somali sultans, although posts on the coast had been acquired in 1856. This small, largely arid and sparsely populated region is important chiefly because of the port of Djibouti, the main artery of Ethiopia's trade via the Djibouti-Addis Ababa railway. The area is administered by a Governor, responsible to the French government and assisted by a representative council. In 1955 there were an estimated 3,132 Europeans, 28,000 Somalis, 25,000 Danakils and 6,000 Arabs.

French West Africa (Group of Overseas Territories) (L'Afrique Occidentale Française)

High Commissioner: Gaston Custin.

Principal cities (est. 1951): Dakar, 229,200 (capital, chief port); (est. 1953) Abidjan, 160,000 (export center); (est. 1952) Bamako, 100,000 (Niger river port).

Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).

Languages: French, native tongues.

Religions: Animist (53.4%); Moslem (44.2%); Christian (2.4%).

HISTORY AND GOVERNMENT. The St. Louis Colony, founded in 1626 at the mouth of the Sénégal River, was probably the first permanent white settlement in French West Africa in which the French established themselves, largely for the purpose of pursuing the slave trade. After 1876 the coast settlements were extended steadily into the interior through a series of missionary and economic campaigns. In 1895 the colony of French West Africa was formed under one Governor General by the unification of its various components.

Under 1957 legislation the high commissioner, with the aid of an indirectly elected Grand Council, co-ordinates the administration of the eight constituent territories—Sénégal, French Guinea, Ivory Coast, Dahomey, Haute Volta (re-established in 1947), French Sudan, Mauritania and Niger. Each territory is administered by a governor assisted by an executive council which is responsible to a popularly elected territorial assembly whose powers are deliberative rather than legislative.

In September 1958, French Guinea voted not to remain in the French Union.

ECONOMIC CONDITIONS. Agriculture has expanded rapidly in recent years. Millet, rice, and maize are the principal food crops, and vegetable oils are a leading commercial product. Peanuts, the chief export crop (1955-56: 938,000 metric tons) are cultivated in Sénégal, and palm kernels and oil are produced in Dahomey and the

Ivory Coast. Other products are coffee, cotton, cacao, and bananas. Stock raising is important in French Sudan and Mauritania, relatively dry districts in the northern part of the area. Manufacturing is undeveloped except for small native industries.

Leading exports in 1956 were coffee (28%), peanuts (20%), peanut oil (14%), and cacao (14%). France took 66% of the exports and supplied 65% of the imports.

NATURAL FEATURES AND RESOURCES.

The area, comprising a sixth of Africa, is half as big as Europe; it is generally a plateau broken by two mountain ranges. The Futa Jallon, from 2,300 to 4,900 feet in elevation, parallels the coast for about 430 miles, and Mount Nimba, on the Liberian border, rises 5,250 feet. There are also mountainous regions in the Saharan districts to the north. The Niger, 2,600 miles long, is the principal river.

Important minerals include diamonds, gold, iron ore and bauxite; production of gold has dropped sharply in recent years but large-scale exploitation of iron ore and bauxite deposits is in progress. Iron ore production totaled 847,000 metric tons in 1956; bauxite, 452,000 tons. Timber and precious woods are important, especially in the Ivory Coast.

MADAGASCAR AND DEPENDENCIES—

Status: Overseas territory.

Capital: Tananarive (Antananarivo) (census 1951: 182,982).

High Commissioner: André Soucadaux.

Foreign trade (1956): exports, 16,300,000,000 fr. C.F.A. (62% to France); imports, 23,094,000,000 fr. C.F.A. (72% from France). Chief exports: coffee (43%), rice (8%), tobacco (6%).

Agricultural products (exports 1956): coffee (52,486 metric tons), rice (36,172 tons), tobacco (3,783 tons), cloves, sugar, vanilla, manioc, bananas, maize, coconuts.

Minerals: graphite (exports 1956: 15,401 metric tons), mica, phosphates, gold.

Forest products: gum, medicinal plants, rubber, tannins, dyewoods.

Madagascar, lying off the southeast coast of Africa, is the fourth largest island in the world, with a length of 995 miles and an average width of 250 miles. It remained independent under native rulers until 1885, when it came under French protection. French troops conquered the island in 1895 and it became a French colony the following year. The last native ruler, Queen Ranaivalona III, was exiled. Serious native nationalist outbreaks occurred in 1947.

Under 1957 legislation the high commissioner administers the area with the aid of an Executive Council, which is responsible to the indirectly elected Representative Assembly. The powers of the latter are

deliberative rather than legislative. Each of the six provinces has a popularly elected Assembly.

The chief occupations are cattle raising (1955: 6,100,000 cattle) and agriculture; there are several food-processing and textile plants. The chief port is Tamatave on the east coast; the capital, Tananarive, is located on the central plateau.

Dependencies include the islands of Europa, Juan da Nova, Bassas da India, Glorieuses and various scattered subantarctic islands known as Iles Australes. Under a 1955 law, they and French Antarctica were to be a separate overseas territory.

The Comoro Islands (832 sq. mi.), formerly a dependency, became an autonomous overseas territory effective Jan. 1, 1947, and are represented in the French parliament, although still partly under the authority of French officials in Madagascar. They are located in the Indian ocean at the north entrance of the Mozambique channel, about 300 mi. north of Madagascar. The Comoros consist of four main islands and several islets. The French Administrator is assisted by a Privy Council and an elected General Council. The population is largely Moslem. Exports include essential oils, sisal, vanilla, copra, cacao and cloves.

RÉUNION (Bourbon)—Status: Département of Metropolitan France.

Capital: St. Denis (population 41,163).
Prefect: Porreau Pradier.

Foreign trade (1956): exports, 6,286,000,-000 fr. C.F.A. (73% to France); imports, 8,082,000,000 fr. C.F.A. (68% from France). Chief exports: sugar (83%), essential oils. Agricultural products: sugar (exports 1956: 185,086 metric tons), vanilla, coffee, maize.

Discovered by Portuguese navigators in the 16th century, the island, then uninhabited, was taken as a French possession in 1638. It is located about 450 miles east of Madagascar, in the Indian Ocean.

There is no indigenous population. About three-quarters of the inhabitants are of European origin; the remainder are Creoles, mulattoes, Negroes, Indians and other Asiatics. Tropical cyclones of hurricane variety are frequent during the change of seasons. Occasionally a *raz de marée* (tidal wave) does great damage.

TOGO—Status: Autonomous republic.

Capital: Lomé (population 35,000).
High commissioner: Jean Béard.
Premier: Nicholas Grunitzky.
Foreign trade (1956): exports, 2,336,000,-000 fr. C.F.A. (77% to France); imports, 2,673,000,000 fr. C.F.A. (44% from France). Chief exports: coffee (35%), cacao (21%), palm kernels and oil, cotton, copra. Agricultural products (exports 1956):

coffee (6,406 metric tons), cacao (4,555 tons), palm kernels and oil, cotton, copra.

Mineral: iron ore.

Forest products: dyewoods, oil palms.

Togo, a part of the former Slave Coast, lies between the British Gold Coast colony and French West Africa. Established as a German colony in 1884, the area was divided as a League mandate by France and Britain at the end of World War I, with France obtaining two-thirds of the total area. It was placed under U. N. trusteeship in 1946. Its status as an autonomous, self-governing republic within the French Union was approved by a popular referendum in Oct. 1956 but the U. N. withheld recognition.

Under the 1956 constitution France through its high commissioner is responsible for foreign affairs, defense and fiscal matters. The high commissioner names the premier, who with his cabinet is responsible to the popularly elected Legislative Assembly.

The southern half is populated principally by the Ewe and Mina tribes; in the north the population is descended largely from Hamitic tribes. There were 1,300 Europeans in 1954. Agriculture and grazing are the chief industries.

The coastline, only 32 miles long, is low, sandy and without harbors. The Togo Hills traverse the central section.

Tunisia. See Tunisia

WESTERN HEMISPHERE

FRENCH GUIANA (including ININI)—Status: Département of Metropolitan France.

Capital: Cayenne (population 12,934).
Prefect: Pierre Maloy.
Foreign trade (1956): exports, 293,000,-000 fr. (43% to France); imports, 2,815,-000,000 fr. (69% from France). Chief exports: rum (27%), timber, gold. Agricultural products: bananas, cacao, corn, manioc, rice, sugar cane. Mineral: gold (exports 1956: 1,075 troy oz.).

French Guiana, lying north of Brazil and east of Surinam (Dutch Guiana) on the northeast coast of South America, was first settled in 1626. Penal settlements, embracing the area around the mouth of the Maroni River and the Iles du Salut (including Devil's Island), were founded in 1852; they were replaced by refugee camps in the 1940's.

During World War II French Guiana at first adhered to the Vichy government, but the Free French took over in March 1943.

GUADELOUPE—Status: Département of Metropolitan France.

Capital: Basse-Terre (population 11,430).
 Prefect: Guy Malines.

Foreign trade (1956): exports, 10,181,-000,000 fr. (66% to France); imports, 12,-695,000,000 fr. (76% from France). Chief exports: sugar (61%), bananas, rum.

Agricultural products: sugar (exports 1956: 123,287 metric tons), bananas, coffee, cacao, manioc, vanilla.

Manufactures: rum, sugar.

Guadeloupe, lying in the West Indies about 300 miles southeast of Puerto Rico, was discovered by Columbus in 1493. French colonization began in 1635. The largest city and chief port is Pointe-à-Pitre (population 30,465). About half the cultivated area is devoted to sugar cane. The manufacturing of rum and spirits is the principal industry.

MARTINIQUE—Status: Département of Metropolitan France.

Capital: Fort-de-France (population 58,-763).

Prefect: Gaston Villéger.

Foreign trade (1956): exports, 9,893,000,-000 fr. (86% to France); imports, 13,179,-000,000 fr. (77% from France). Chief exports: sugar (42%), bananas, rum.

Agricultural products: sugar (exports 1956: 72,138 metric tons), bananas, pineapples, cacao, coffee.

Manufactures: rum, sugar.

Martinique, lying in the Lesser Antilles about 300 miles northeast of Venezuela, was probably discovered by Columbus in 1502 and was taken for France in 1635. Following the Franco-German armistice of 1940 it had a semi-autonomous status under the High Commissioner, Admiral Georges Robert, until 1943, when he relinquished his authority to the Free French. The area, administered by a Prefect assisted by an elected council, is represented in the French legislature. The population is mainly Negro and mulatto. Most of the arable land is devoted to sugar cultivation. Fort-de-France, the capital and chief commercial center, has an excellent harbor.

ST. PIERRE AND MIQUELON—Status: Overseas territory.

Capital: St. Pierre (population 3,997).

Administrator: Pierre Sicaut.

Foreign trade (1956): exports, 195,000,-000 fr. C.F.A. (46% to the U. S.); imports, 644,000,000 fr. C.F.A. (51% from Canada). Chief export: fish and products.

The sole remnant of the French colonial empire in North America, these islands were first occupied by the French in 1660. Their only importance arises from proximity to the Grand Banks, located ten miles south of Newfoundland, making them the center of the French Atlantic cod fisheries.

ASIA

Indo-China. (See World Politics section and articles on Vietnam, Cambodia and Laos).

OCEANIA**FRENCH PACIFIC SETTLEMENTS—Status: Overseas territory.**

Governor: Jean Toby.

Capital: Papeete, on Tahiti (population 1951: 15,214).

Foreign trade (1956): exports, 659,000,-000 fr. C.F.P.* (52% to France); imports, 676,000,000 fr. C.F.P. (30% from the U. S., 30% from France). Chief exports: phosphate (33%), copra, vanilla.

Agricultural products: copra (exports 1956: 20,000 metric tons), sugar, vanilla, tobacco.

Mineral: phosphate (1956 exports: 264,-926 metric tons).

* Colonies Françaises du Pacifique, equal to 5½ metropolitan France.

The term French Pacific Settlements is applied to the scattered French possessions in the eastern Pacific—Mangareva (Gam-bier), Makatea, Marquesas Islands, Rapa, Rurutu, Rimatara, Society Islands, Tuamotu Archipelago, Tubuai and Raivavae—which were organized into a single colony in 1903. The appointed Governor is assisted by a Privy Council and a popularly elected Representative Assembly. The principal and most populous island—Tahiti, in the Society group (pop. 1951: 30,500)—was claimed as French in 1768. The natives are mostly Polynesians.

NEW CALEDONIA AND DEPENDENCIES—Status: Overseas territory.

Capital: Nouméa (population 20,000).

Governor: Aimé Grimald (also French High Commissioner in the Pacific).

Foreign trade (1956): exports, 1,982,000,-000 fr. C.F.P. (67% to France); imports, 2,105,000,000 fr. C.F.P. (45% from France). Chief exports: nickel (87%), chromite, coffee.

Agricultural products: coffee, copra, corn, cotton, manioc, rice, tobacco.

Minerals (1956): nickel (6,920 metric tons, matte), chromite (49,190 tons), iron ore.

Sea product: mother-of-pearl.

New Caledonia (6,533 sq. mi.), lying about 1,070 miles northeast of Sydney, Australia, was discovered by Captain James Cook in 1774 and annexed by France in 1853. The government, in the hands of an appointed Governor and an elective Council, also administers the Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Chesterfield Islands, Walpole, the Huon Islands, Futuna and Alofi, with a total area of 1,121 square miles. The area—taken over in the summer of 1940 by the Free French after a bloodless revolution—is one of the richest of the Pacific Islands in mineral resources, particularly nickel and

chrome ore. The natives are Melanesians; about one-third of the population is white and one-fifth Indo-Chinese and Javanese. A French penal colony was established in the 19th century.

NEW HEBRIDES—Status: Anglo-French condominium.

Capital: Vila (population 1,200).

Foreign trade (1956): exports, 268,117,000 fr. C.F.P.; imports, 195,332,000 fr. C.F.P. Chief exports: copra (80%), cacao.

Agricultural products: coconuts, cacao, coffee.

Sea products: trochus and burghaus shell.

The New Hebrides, under joint Anglo-French administration since 1914, lie northeast of New Caledonia. The islands, about 40 in number, joined the Free French movement after a plebiscite in July 1940. Most of the natives are Melanesians of mixed blood; there were 350 British and 1,300 French in 1952. The largest island is Espiritu Santo (875 sq. mi.). The French and British high commissioners in the Pacific are represented by resident commissioners.

GERMANY

HISTORY. In Caesar's time, the territory that is now Germany was inhabited by barbarous tribes that came originally perhaps from Central Asia. One of these Germanic tribes, the Franks, attained supremacy in western Europe under Charlemagne, who was crowned Holy Roman Emperor in A.D. 800. By the Treaty of Verdun (843), Charlemagne's lands east of the Rhine were ceded to the German Prince Louis. Additional territory acquired by the Treaty of Mersen (870) gave Germany approximately the area she maintained throughout the Middle Ages. For several centuries after Otto the Great was crowned King in 936, the German rulers were also usually heads of the Holy Roman Empire.

Relations between State and Church were changed by the Reformation, which began with Martin Luther's 95 theses, and came to a head in 1547, when Charles V scattered the forces of the Protestant League at Mühlberg. Freedom of worship was obtained by the Peace of Augsburg (1555), but a Counter Reformation took place later, and a dispute over the succession to the Bohemian throne brought on the Thirty Years' War (1618-48) which devastated Germany and left the empire divided into hundreds of small principalities virtually independent of the Emperor. Meanwhile, Prussia was developing into a province of considerable strength. Frederick the Great (1740-86) reorganized the Prussian army and defeated Maria

Theresa of Austria in a struggle over Silesia. The conflict with revolutionary France hastened the disintegration of the empire, and in 1806 Francis II of Austria laid down the Imperial German crown. After the defeat of Napoleon at Waterloo (1815), the struggle between Austria and Prussia for supremacy in Germany continued, reaching its climax in the defeat of Austria in the Seven Weeks' War (1866) and the formation of the Prussian-dominated North German Confederation (1867).

(For recent history, see *World Politics* section).

Adolf Hitler. With the death of President von Hindenburg in 1934, Hitler became complete master of Germany. He repudiated the Treaty of Versailles and began full-scale rearmament. In 1935 he withdrew from the League of Nations, and in 1936 he reoccupied the Rhineland and signed the anti-Comintern pact with Japan, at the same time strengthening relations with Italy. Austria was annexed in March, 1938. By the Munich agreement (Sept., 1938) he gained the Czech Sudetenland, and in violation of this agreement he completed the dismemberment of Czechoslovakia in March, 1939. But his invasion of Poland on Sept. 1, 1939, precipitated British and French declarations of war.

On May 8, 1945, Germany surrendered unconditionally to Allied and Soviet military commanders, and on June 5 the four-nation Allied Control Council became the *de facto* government of Germany.

At the Berlin (or Potsdam) Conference (July 17-Aug. 2, 1945) President Truman, Stalin and Prime Minister Attlee set forth the principles by which the Allied Control Council was to be guided. They were: Germany's complete disarmament and demilitarization; destruction of its war potential; rigid control of industry; decentralization of the political and economic structure. Pending final determination of territorial questions at a peace conference, the three victors agreed in principle to the ultimate transfer of the city of Königsberg (now Kaliningrad) and its adjacent area to the Soviet Union and to the administration by Poland of former German territories lying generally east of the Oder-Neisse line.

For purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a Military Governor, assisted by appropriate supervisory and operating staffs.

Efforts to unify Germany were totally unsuccessful, and the western powers were unable to agree with the U.S.S.R. on any fundamental issue. Work of the Allied Control Council was hamstrung by repeated Soviet vetoes; and finally, on March 20, 1948, the U.S.S.R. walked out of the Council. Meanwhile, the U. S. and Britain

had taken steps to merge their zones economically (Bizone); and on May 31, 1948, the U. S., Britain, France and the Benelux countries agreed to set up a German state comprising the three western zones. At the same time the western powers introduced a new German currency.

The Soviet Union replied to these measures by clamping a blockade on all ground communications between the western zones and Berlin. The western Allies, refusing to be driven out of the capital, immediately organized a gigantic airlift to fly supplies into the beleaguered city. Before the Russians were finally forced to lift the blockade on May 12, 1949, 60,000 men were engaged in the airlift.

In return for lifting the blockade, the U.S.S.R. asked only that the Big Four Foreign Ministers meet again to discuss German unification. The conference, meeting in Paris from May 23 to June 20, 1949, ended as usual in a deadlock.

The Big Four Foreign Ministers met once more at Berlin from Jan. 25 to Feb. 18, 1954, again without success. No progress toward German reunification was made thereafter.

German Federal Republic

Area: 94,719 square miles.*

Population (est. 1957): 51,469,000 (predominantly German).

Density per square mile: 534.2.

President: Theodor Heuss.

Chancellor: Konrad Adenauer.

Principal cities (est. 1953): Hamburg, 1,658,000 (chief port); Munich, 870,000 (Bavarian capital); Cologne, 629,200 (transportation center); Essen, 624,100 (steel center); Frankfurt am Main, 564,400 (manufacturing); Bonn, 130,000 (capital).

Monetary unit: Deutsche Mark (Dm.).

Language: German.

Religions (census 1950): Protestant, 52.2%; Roman Catholic, 43.8%; others, 4.0%.

* Excluding west Berlin.

HISTORY AND GOVERNMENT: (See *World Politics* section).

ECONOMIC CONDITIONS. *Agriculture.*

Agriculture is characterized by mixed farming, the climate and the soil permitting cultivation of a variety of crops and most types of livestock. Rye and potatoes are staple crops in the north; grains and sugar beets in the central regions. The northwestern and southern areas are noted for dairying, while the west is the chief fruit- and wine-producing region. The soil is generally poor, and high crop yields are dependent upon large-scale use of fertilizers.

In Dec. 1956, western Germany (excluding the Saar) had 11,814,610 cattle, 1,024,898 horses, 14,407,465 hogs, and 1,145,465 sheep.

Western Germany is not self-sustaining in food. Difficulties stem to a considerable extent from the fact that Poland now con-

trols the area east of the Oder-Neisse, which contained 28 per cent of prewar Germany's arable land and produced about 25 per cent of its food.

Industry. Western Germany's industry is well-developed and highly diversified. It accounted for about two-thirds of Germany's prewar industrial production and for a large part of iron and steel production.

Shipbuilding has regained its former prominence. Industrial production in 1956 was 140% of the 1953 level.

Western Germany is a member of the European Coal and Steel Community, which commenced activities on Aug. 10, 1952. It has jurisdiction over the production and allocation of coal and steel by its member nations.

Trade. Leading customers in 1956 were the Netherlands (9%), France (8%), Belgium (7%), the U. S. (7%), and Sweden (7%); leading suppliers, the U. S. (14%), France (7%), the Netherlands (7%), Belgium (4%), and Sweden (4%). Leading exports included machines (18%), vehicles (9%), electrical machinery and apparatus (8%), iron and steel products (5%), and coal (3%); leading imports, coal (5%), copper (4%), iron ore (4%), cotton (4%), and wheat (3%).

Shipping on the Rhine is controlled by the Central Commission of the Rhine—an international body composed provisionally of U. S., British, French, Swiss, Dutch and Belgian representatives—which was reconvened in October 1945.

NATURAL FEATURES AND RESOURCES.

The northern plain, the central hill country and the southern mountain district constitute the main physical divisions of western Germany. The Bavarian plateau in the southwest averages 1,600 feet above sea level, but it reaches 9,721 feet in the Zugspitze, the highest point in Germany.

There are several important navigable rivers. In the south the Danube, rising in the Black Forest, flows east across Bavaria into Austria. The other important rivers flow north. The Rhine, which rises in Switzerland and flows across the Netherlands in two channels to the North Sea, is navigable by smaller vessels as far as Cologne. The Rhine and the Elbe, which also empties into the North Sea, are navigable within Germany for ships of 400 tons. The Weser, flowing into the North Sea, and the Main and Mosel (Moselle), both tributaries of the Rhine, are also important.

Minerals and Forests. Aside from rich deposits of coal and potash, western Germany's mineral wealth is not considerable. The Ruhr, Krefeld and Aachen districts constitute one of the world's greatest coal mining regions.

About 23 per cent of the total area of western Germany is covered by commercial forests, which yield timber as well as material for paper, wood fiber, cellulose and other products.

German Democratic Republic

Area: 41,380 square miles.*
Population (est. 1955): 16,587,000* (predominantly German).

Density per square mile: 398.7.

Soviet High Commissioner: G. M. Pushkin.

President: Wilhelm Pieck.

Premier: Otto Grotewohl.

Principal cities (est. 1953): Leipzig, 607,700 (trading, publishing center); Dresden 510,100 (railway center, Elbe port); Karl-Marxstadt (Chemnitz), 298,500 (textiles); Halle am der Saale, 278,400 (railway center); Magdeburg, 252,300 (iron and steel products).

Monetary unit: Ostmark.

Religions (census 1946): Protestant, 81.3%; Roman Catholic, 12.1%; others, 6.6%.

* Excluding east Berlin.

HISTORY AND GOVERNMENT. The so-called German Democratic Republic comprises the Soviet zone of occupation of eastern Germany. It was proclaimed on Oct. 7, 1949, with its seat at Berlin, on the basis of a Constitution adopted May 30, 1949, by a People's Congress chosen under a plebiscite arrangement in elections held in the Soviet zone and eastern Berlin on May 15 and 16, 1949. The Congress elected a People's Council (*Volksrat*) which was transformed on Oct. 7 into a provisional People's Chamber (*Volkskammer*). A Chamber of the States (*Länderkammer*) was nominated on Oct. 10, and on Oct. 11 both chambers elected Communist-leader Wilhelm Pieck as President of the republic and Otto Grotewohl as Minister-President or Premier. The Constitution is soviet in nature and the government is under complete Communist domination. Soviet government supervision is exercised by the Soviet High Commissioner.

The republic lies largely between the Elbe and Oder rivers, including most of Brandenburg, Mecklenburg and the industrial Saxon and Thuringian lands.

ECONOMIC CONDITIONS. About 22 per cent of the population is engaged in agricultural pursuits and the area is almost self-sufficient in foodstuffs. Postwar yields have, however, suffered from droughts and shortages of fertilizers.

Most of the industrial establishments, particularly in heavy industry, have been nationalized. The area accounted for 26 per cent of prewar Germany's industrial production, ranking first in textiles, paper and pulp and ceramics and glass (especially

optical glass produced by the famous Jena works). A Two-Year Plan inaugurated in 1949 had the object of raising the volume of production to 81 per cent of the 1936 level by the end of 1950, while a Five-Year Plan initiated in 1951 aimed at doubling the 1936 level by 1955. Unofficial production data for 1955 are as follows: pig iron (1,520,000 metric tons); raw steel (2,500,000 tons), cement (2,950,000 tons).

Foreign trade is carried on through government-owned trading companies. Trade is confined largely to Europe. Important imports include foodstuffs, minerals and textiles; exports include machinery, engineering equipment and chemicals.

NATURAL RESOURCES. The area is not rich in minerals. It has only minor deposits of coal. It does have important deposits of lignite and crude potash.

Berlin

Area: 341.2 square miles.

Population (est. 1955): 3,300,000.

Berlin, the capital of prewar Germany, is surrounded by the German Democratic Republic. It is occupied by the forces of the U. S., the U. K., France and the U.S.S.R., each having its own sector of occupation. The three western sectors contain 55% of the area and about two-thirds of the population.

The supreme authority in western Berlin is a tripartite *Kommandatura* which has responsibility for the exercise of the powers reserved to the occupation forces under the Berlin Charter, a document analogous to the former west German Occupation Statute. With the termination of the Allied occupation of western Germany, Allied controls were substantially relaxed.

Other powers of government are exercised by a City Assembly elected by popular vote and a *Magistrat* (city council) chosen by the Assembly.

Supreme authority in the eastern sector of Berlin is exercised by the Soviet High Commissioner. Powers not exercised by him or by the German Democratic Republic are vested in a "rump" city government, which proclaimed itself in power Nov. 30, 1948. Major anti-Communist riots broke out in east Berlin in June 1953.

The Saar

Area: 991 square miles.

Population (est. 1955): 996,000.

Density per square mile: 1,005.0.

Premier: Egon Reinert.

Principal city: Saarbrücken (est. pop. 116,395).

Monetary unit: French franc.

The Saar is an industrial and mining region lying on Germany's western frontier north of Lorraine. Under the Treaty of Versailles it was detached from Ger-

many and placed under the administration of the League of Nations, its coal mines being transferred to France. It voted in Jan. 1935 for reunion with Germany.

Part of the French zone of occupation after World War II, the Saar was politically united with western Germany as one of its constituents on Jan. 1, 1957, under a Franco-German agreement of June 4, 1956, and was to be economically integrated into western Germany by 1960. One of the 1954 Paris agreements provided for the so-called Europeanization of the Saar, but this proposal was rejected by the people in a referendum Oct. 23, 1955. Subsequent Diet elections returned a pro-German majority. Under the Saar's Constitution it had a popularly elected Diet of 50 members, to which the Cabinet headed by the Premier was responsible. There was no head of state as such.

Coal mines are under French management with some Saar participation, an annual royalty being paid to the Saar by France.

Greece (Kingdom)

(Hellas)

Area: 51,182 square miles.*

Population (est. 1956): 8,031,000.* (1940, excluding the Dodecanese Greek, 92.8%; Turkish, 3.8%; Macedonian, 1.3%; Spanish, 1%; others, 1.1%.)

Density per square mile: 156.9.*

Sovereign: King Paul I.

Premier: Konstantinos Karamanlis.

Principal cities (census 1951, municipal areas only): Athens, 565,084 (capital); Salonika, 217,049 (seaport); Piraeus, 186,014 (port of Athens); Patras, 79,014 (seaport); Volos, 51,144 (seaport).

Monetary unit: Drachma.

Languages: Greek, Turkish.

Religions: Greek Orthodox, 96%; Mohammedan, 2%; Jewish, 1.1%; others, .9%.

* Including the Dodecanese.

HISTORY AND GOVERNMENT. Greece, with a recorded history going back to 766 B.C., reached the peak of its glory in the 5th century B.C., and by the middle of the 2nd century B.C., it had declined to the status of a Roman province. It remained within the Eastern Roman Empire until Constantinople fell to the Crusaders in 1204. In 1453, the Turks took Constantinople, and by 1460 Greece was a Turkish province. The insurrection made famous by the poet Lord Byron broke out in 1821, and in 1827 Greece was set up an independent nation, with sovereignty guaranteed by Britain, France and Russia. Prince Otto of Bavaria was recognized as King five years later, but he was ousted by a revolution in 1862. Prince William of Denmark, as George I, succeeded him.

(For recent history, see *World Politics* section.)

Greece is a constitutional hereditary monarchy. Nominal executive power is vested in the King.

ECONOMIC CONDITIONS About three-quarters of the population engages in agricultural pursuits, although only one-fifth of the land is arable. Most of the cultivated area is devoted to cereals: wheat, barley, and maize. There are also olive trees, vines, tobacco, and currants. The principal fruits are oranges, lemons, figs, mandarins, apples, and pears. In Dec., 1955, there were 957,000 cattle, 8,970,000 sheep, and 621,000 hogs.

Development of large-scale Greek manufacturing is blocked by lack of coal resources and of capital. The most valuable products are textiles, chemicals and food items. Among other processed or manufactured products are olive oil, wine, spirits, flour, carpets, leather, cigarettes and building materials.

Leading customers in 1956 were western Germany (20%), France (13%) and the U. S. (12%); leading suppliers, the U. S. (17%), western Germany (16%) and Britain (14%). Leading exports were tobacco (34%) and currants and raisins (16%).

The merchant marine plays a vital part in the national economy.

Reconstruction of the Greek transport system, financed by U. S. aid, was completed in 1949; it included extensive work on highways, port and dry-dock facilities, railways and bridges.

NATURAL FEATURES AND RESOURCES. North central Greece, Epirus and western Macedonia all are mountainous. The main chain of the Pindus Mountains rises to 9,000 feet in places, separating Epirus from the plains of Thessaly. Greek Thrace is mostly a lowland region separated from European Turkey by the lower Maritsa River.

Among the many islands are the Ionian group off the west coast; the Cyclades group to the southeast; other islands in the eastern Aegean, including Lesbos, Samos and Khios; and Crete, the fourth largest Mediterranean island.

The Dodecanese, a group of thirteen islands in the Aegean Sea near the coast of Asia Minor, were ceded to Greece by the 1947 Italian peace treaty and were formally transferred on March 7, 1948.

Greek minerals are varied but are exploited only moderately. Principal ones are lignite, iron ore, iron pyrites, magnesite, chromite, lead, bauxite, molybdenum, emery, marine salt and the country's famous marble.

A fifth of the country is forested, largely with pine, fir and oak. Resin and turpentine are main forest products. The principal sea product is sponges.

Guatemala (Republic)

(República de Guatemala)

Area: 42,042 square miles.
 Population (est. 1957): 3,450,000 (1950: Indian, 53.5%; mixed and other, 46.5%).
 Density per square mile: 79.7.
 President: Luis A. Gonzalez Lopez.
 Principal cities (est. 1953): Guatemala, 319,000 (capital); Quezaltenango, 31,000 (coffee, sugar); Puerto Barrios, 18,000 (port); Mazatenango, 13,000 (coffee).
 Monetary unit: Quetzal.
 Language: Spanish.
 Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Once the site of the ancient Mayan civilization, Guatemala, conquered by Spain in 1524, set itself up as a republic in 1839. From 1898 to 1920, the dictator Manuel Estrada Cabrera ran the country, and from 1931 to 1944 General Jorge Ubico Castañeda was the "strong man." In July, 1944, the National Assembly elected General Federico Ponce President, but he was overthrown in October, and in December Dr. Juan José Arévalo was elected as the head of a leftist regime which continued to press its reform program in the face of conservative resistance. He took office on March 15, 1945. Jacobo Arbenz Guzmán, administration candidate with pro-Communist leanings, won the Nov. 1950 elections and took office March 15, 1951.

(For recent history see *World Politics* section.)

A new Constitution has been adopted to take the place of that of 1945, which provided that a President be elected every six years by direct vote and could not succeed himself immediately. Legislative power was vested in a unicameral National Assembly whose members are popularly elected for four-year terms, half the members being elected every two years.

ECONOMIC CONDITIONS. Agriculture engages 90 per cent of Guatemalans. Coffee accounts for a fifth of the cultivated land.

In 1956 the U. S. took 72% of the exports and supplied 67% of the imports. The chief exports were coffee (79%) and bananas (8%). Imports included flour, petroleum products, drugs, and textiles.

NATURAL FEATURES AND RESOURCES. Most of Guatemala is mountainous, with many volcanic peaks. The northern part is the great plain of Petén, largely uncultivated and sparsely populated. The narrow Pacific slope, well watered and fertile, is the most densely populated and the most productive part.

The country's vast forests, mostly in the Petén region, yield chicle for chewing gum, cinchona bark, a small amount of rubber, and dyewoods and cabinet woods.

Haiti (Republic)

(République d'Haïti)

Area: 10,748 square miles.
 Population (est. 1957): 3,384,000 (Negro, 95%; mulatto, 5%).
 Density per square mile: 311.7.
 President: François Duvalier.
 Principal cities (census 1950)*: Port-au-Prince, 142,840 (capital, chief port); Cap-Haïtien, 24,957 (seaport); Gonaïves, 13,534 (farming district); Les Cayes, 11,835 (seaport; coffee).
 Monetary unit: Gourde.
 Language: French.
 Religion: Roman Catholic.

* Cities proper, excluding surrounding communes.

HISTORY AND GOVERNMENT: (See *World Politics* section). Normally the President is elected for six years by two-thirds vote of the National Assembly. That body consists of a 37-member Chamber of Deputies, elected for four years by popular vote, and a 21-member Senate elected for six years.

ECONOMIC CONDITIONS. Haiti is predominantly agricultural. Coffee, which makes up more than 50 per cent of Haitian exports, is the principal crop, followed by sisal, sugar cane, cotton, bananas, and cacao. Manufacturing is almost entirely for local consumption.

Leading exports in 1956 were coffee (72%), sisal (14%) and sugar (5%). Leading customers were the U. S. (34%), Belgium (20%) and Italy (18%); leading suppliers, the U. S. (62%), Canada (7%) and Germany (4%).

NATURAL FEATURES AND RESOURCES. Haiti, about the size of Maryland, is two-thirds mountainous, with the rest marked by great valleys, extensive plateaus and small plains. The most densely populated and productive region is the Cul de Sac plain, near Port-au-Prince.

Honduras (Republic)

(República de Honduras)

Area: 43,277 square miles.
 Population (est. 1956): 1,711,000 (1945: mestizo, 89.9%; Indian, 6.7%; Negro, 2.1%; white, 1.3%).
 Density per square mile: 39.5.
 Executive: Military junta.
 Principal cities (census 1950): Tegucigalpa (including twin city of Comayagua), 72,385 (capital); San Pedro Sula, 21,139 (bananas); La Ceiba, 16,645 (seaport, bananas); Tela, 12,614 (seaport).
 Monetary unit: Lempira.
 Language: Spanish.
 Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Columbus discovered Honduras on his last voyage in 1502. Honduras declared its independence from Spain in 1838, and has been troubled

by revolution and war ever since. American Marines intervened in 1903 and 1923. In 1931, 1932, and 1937 major revolutions were crushed by force. The Nicaraguan-Honduras boundary dispute of 1937 almost caused war, and in April, 1945, the country was invaded from Guatemala by a group of Honduran exiles, who were suppressed.

ECONOMIC CONDITIONS.

In 1956 the U. S. took 68% of the exports and supplied 66% of the imports. Leading exports were bananas (46%), coffee (22%) and silver (7%).

NATURAL FEATURES AND RESOURCES. Honduras, in the north central part of Central America, has a 400-mile Caribbean coast-line and a 40-mile Pacific frontage. Generally mountainous, it has fertile plateaus and river valleys and narrow coastal plains.

Gold and silver are the most important mineral products of Honduras.

Hungary (Republic)

Area: 35,905 square miles.

Population (estimated 1957): 9,812,000 (Magyar, German, Slovak).

Density per square mile: 275.9.

Chairman of Presidium: István Dobi.

Prime Minister: Janos Kadar.

Principal cities (est. 1954): Budapest, 1,781,085 (capital, Danube port); Miskolc, 135,780 (industrial center); Debrecen, 113,248 (livestock); Szeged, 88,590 (textiles, wheat); Pécs, 87,140 (farming).

Monetary unit: Forint.

Languages (census 1949): Hungarian, 98.7%; Slovak, .3%; German, .2%; Rumanian, .2%; others, .6%.

Religions (est. 1949): Roman Catholic, 70.6%; Calvinist, 22.8%; Lutheran, 3.3%; Jewish, 1.9%; Greek Orthodox, .4%; others, 1%.

HISTORY AND GOVERNMENT. About 2,000 years ago, Hungary was part of the Roman provinces of Pannonia and Dacia on the empire's borders. In A.D. 894 it was invaded by the Magyars, who founded a kingdom. Christianity was accepted during the reign of Stephen I (St. Stephen) from 997 to 1083. The peak of Hungary's great period of medieval power came in 1342-82 under King Louis the Great (Louis I) of Anjou, whose dominions touched the Baltic, Black, and Mediterranean seas. When the Turks smashed a Hungarian army in 1526, western and northern Hungary accepted Hapsburg rule to escape Turkish occupation. Transylvania became independent under Hungarian princes. Intermitent war with the Turks was waged thereafter for some years.

After the suppression of the 1848 revolt against Hapsburg rule led by Louis Kossuth, the dual monarchy of Austria-Hungary was set up in 1867.

The dual monarchy was defeated with the other Central Powers in World War I, and the new Hungary underwent hard times. First there was a short-lived Socialist republic in 1918. The chaotic Communist rule of 1919 under Béla Kun ended with the Rumanians occupying Budapest on Aug. 4, 1919. When the Rumanians left, Admiral Nicholas Horthy entered the capital with a national army. The Treaty of Trianon of June 4, 1920, cost Hungary 75 per cent of its land and more than 50 per cent of its population. Meanwhile, the National Assembly had restored the legal continuity of the old monarchy; and on March 1, 1920, Horthy was elected Regent.

Following the German invasion of Russia on June 22, 1941, Hungary joined the attack against the U.S.S.R., but the war was not popular and Hungarian troops were almost entirely withdrawn from the eastern front by May 1943. German occupation troops set up a puppet government after Admiral Horthy's appeal for an armistice with advancing Soviet troops had resulted in his overthrow on Oct. 16. The German regime soon fled the capital, however, and on Dec. 23 a provisional government was formed in Soviet-occupied eastern Hungary. On Jan. 20, 1945, it signed an armistice in Moscow. On Feb. 1, 1946, the National Assembly approved a constitutional law abolishing the 1,000-year-old monarchy and establishing a republic.

ECONOMIC CONDITIONS. Agriculture is the basis of Hungarian economic life, engaging more than half the population. The Land Reform Act issued in March, 1945, provided for the confiscation of all estates over 1,500 acres; about 8,000,000 acres were divided among some 500,000 families. Cereals grown in the fertile Danubian plains are the chief crops. Leading crops in 1956 were wheat, potatoes, barley, rye, oats, maize, and sugar beets.

In addition, cultivation of vines, fruit and garden produce is important; the famous Tokay wine is produced on the southern slopes of the Hegyalja in the northeast.

Horse-breeding is a traditionally important branch of agriculture. Hungarians have a great love for horses, and their excellent breeds were exported in large numbers before World War II. Livestock in 1956 included 1,930,000 sheep, 6,056,000 hogs, (1955) 1,983,000 cattle, 550,000 horses.

The dominant industries are all based on agriculture, with flour milling in first place, followed by sugar refining, brewing and canning. The second group of industries make hardware and machinery. Most of the machine industry is concentrated in Budapest and Győr. Cotton leads the textile industry, especially in Budapest, which is also a center of woolen manufactures.

Hemp and flax weaving are important. An estimated 885,000 persons were employed in industry in 1954. Almost all industrial facilities were nationalized under laws passed in 1946, 1948 and 1949. In addition, the Soviet Union took over all German-owned plants as reparations, and in 1946 Soviet-Hungarian companies were formed to exploit bauxite, petroleum, and air and river navigation; the Soviet shares in these companies were sold to Hungary in Nov. 1954.

Leading exports ordinarily include grain, textiles, live animals and animal products, and machinery.

NATURAL FEATURES AND RESOURCES. Most of Hungary is a fertile, rolling plain lying east of the Danube, and drained by the Danube and the Tisza Rivers. In the extreme northwest is the Little Hungarian Plain. South of that area is Lake Balaton, 250 square miles, the largest lake of western and central Europe.

While Hungary generally is mineral-poor, it has about 20% of the world's known reserves of bauxite. The coal is of low quality and is insufficient to meet domestic needs. Other minerals include iron ore, manganese, and gold.

Iceland (Republic)

(Ísland)

Area: 39,768 square miles.*
Population (est. 1957): 164,000 (almost entirely Icelandic).

Density per square mile: 4.1.
President: Asgeir Asgeirsson.
Prime Minister: Hermann Jonasson.
Principal city (est. 1955): Reykjavik, 63,666 (capital and only large city).
Monetary unit: Króna.
Languages: Icelandic, Danish.
Religion: Evangelical Lutheran.

* Including several off-shore islands.

HISTORY AND GOVERNMENT. Iceland was first settled shortly before 900, mainly by Norse. A Constitution drawn up about 930 created a form of democracy and provided for an Althing, or General Assembly, now the oldest legislative body in the world. In 1262-64, Iceland came under Norwegian rule and passed to ultimate Danish control through the formation of the Union of Kalmar in 1483. In 1874 Icelanders obtained their own Constitution. In 1918 Denmark recognized Iceland as a separate state with unlimited sovereignty, but still nominally under the Danish King. On June 17, 1944, after a popular referendum, the Althing proclaimed Iceland a completely independent republic.

The British occupied Iceland in 1940, immediately after the German invasion of Denmark. In 1942, the United States took over the burden of protection. Iceland refused to abandon its neutrality in World War II, and thus forfeited charter member-

ship in the United Nations, but it was co-operative with the Allies throughout. Iceland joined the North Atlantic Treaty Organization in 1949, and in May 1951, U. S. troops again landed at Iceland's request to aid in its defense preparations. Withdrawal of an Icelandic request for evacuation of U. S. troops was announced Dec. 6, 1956.

Constitutionally, the President of Iceland is elected for four years by popular vote. Executive power of the state resides in the Prime Minister and his Cabinet. The Althing is composed of two houses, one with seventeen members and the other with thirty-five; each has equal constitutional power. Iceland has no army or navy.

ECONOMIC CONDITIONS. Approximately six-sevenths of Iceland is unproductive, and only one-fourth of one per cent is under cultivation. With about 30 per cent of the population engaged in farming, sheep raising is the most important branch of this industry. Hay, potatoes, and turnips are the principal crops.

Fish and fish products accounted for 93% of the exports in 1956. Leading customers were the U.S.S.R. (20%), the United States (12%), Britain (9%), and western Germany (9%); leading suppliers, the United States (17%), the U.S.S.R. (17%), and western Germany (10%).

NATURAL FEATURES AND RESOURCES. Iceland, a bleak, volcanic island about the size of Kentucky, has maximum dimensions of 298 by 194 miles; it is mostly tableland, high, rugged, and barren. It is one of the world's most volcanic regions.

Small fresh-water lakes are found throughout the island, and there are many natural oddities, including hot springs, geysers, sulfur beds, canyons, waterfalls, and swift rivers. More than 13 per cent of the area is covered by snowfields and glaciers, and most of the people live in the 7 per cent of the island comprising fertile coastlands. Vegetation is of the Arctic type, mostly stunted. Except for peat and fisheries, Iceland has no natural resources.

About one-sixth of the people are engaged in fishing, and fish and fish products make up the bulk of Iceland's exports. The annual catch averages approximately 350,000 metric tons. Many European fishing craft visit Iceland's fisheries, which lead the world in cod and are important for herring, plaice and halibut.

Indonesia (Republic)

(Republik Indonesia)

Area: 575,893 square miles.*
Population (est. 1957): 85,500,000*
 (Indonesian, except for an estimated 1,500,000 Chinese and 100,000 Europeans in 1951).

Density per square mile: 147.0.*

President: Achmed Sukarno.

Premier: Djuanda Kartawidjaja.

Principal cities (est. Dec. 31, 1956): Jakarta, 1,927,785 (capital); Surabaya, 980,905 (industrial center); Bandung, 870,346 (commercial center, west Java); Semarang, 389,970 (seaport, central Java); Surakarta, 380,843 (industrial center); Makassar, 346,080 (coffee, teak); Medan, 303,261 (rail center, Sumatra).

Monetary unit: Rupiah.

Languages: Bahasa Indonesia (Malay) (official), Dutch, Javanese, Sundanese, Madurese.

Religions: Moslem (predominant), Christian (about 2,500,000), Brahmin, Buddhist.

* Excluding Netherlands New Guinea.

HISTORY. The sovereign state of Indonesia, a group of islands with a total area more than twice that of Texas, constitutes one of the world's richest natural areas. These islands—Sumatra, Java, Madura, central and southern Borneo, Celebes, and the Moluccas—would reach from San Francisco to Honolulu if their extent was transposed to the eastern Pacific. They have great wealth in tin, rubber, spices, oil, quinine, and copra.

During the first few centuries of the Christian era, most of the islands came under the influence of Hindu priests and traders who spread their culture and religion. Moslem invasions began in the thirteenth century, and most of the area was Moslem by the fifteenth century. Portuguese traders arrived early in the sixteenth century but were ousted by the Dutch about 1595. After Napoleon subjugated the Netherlands homeland in 1811, the British seized the islands but returned them to the Dutch in 1816. In 1922 the islands were made an integral part of the Netherlands kingdom.

In World War II, the Japanese military occupation with nominal native self-government continued until Aug. 1945, except in outlying parts of New Guinea and Borneo. About the time of the Japanese surrender, a self-styled Indonesian Republic headed by Achmed Sukarno sprang up and took over effective control of parts of Sumatra and Java. Allied forces, mostly British Indian troops, moved in, and fighting between them and the nationalists continued until Nov. 15, 1946, when Dutch-Indonesian parleys resulted in a draft agreement that contemplated the formation by Jan. 1, 1949, of a Netherlands-Indonesian Union, consisting on the one hand of the Netherlands, the Netherlands Antilles and Surinam and on the other of the United States of Indonesia, which was to be a sovereign nation composed of three equal states—the Republic of Indonesia, East Indonesia, and Borneo. Differences of interpretation ensued, and the Dutch resorted to force on July 20, 1947. Both sides

issued cease-fire orders on Aug. 4, 1947, in response to a call from the U. N. Security Council.

After the Dutch and the Republic signed another truce on Jan. 17, 1948 a provisional federal government for the whole area was installed on Mar. 9, 1948, but difficulties between the Dutch and the Republic continued. On Dec. 18, 1948, Dutch forces instituted "police" action against Republican areas and seized the Republican leaders. Hostilities ceased Jan. 1, 1949, following U. N. intervention. On May 7, the Dutch agreed to return the exiled Republican regime to central Java.

On Nov. 2, 1949, Dutch and Indonesian leaders agreed upon the terms of union between the Netherlands and Indonesia. Dr. Sukarno was elected President of the federation on Dec. 16 by representatives of the Indonesian states, and the first all-Indonesian Cabinet was formed with Mohammed Hatta as Premier. The transfer of sovereignty took place at Amsterdam on Dec. 27, 1949.

ECONOMIC CONDITIONS. The islands of Java and Madura, with only 9 per cent of the area, have more than two-thirds of the population, and are among the most densely settled areas in the world (more than 1,000 per sq. mi.). The people, including about 137 races and tribes, are mainly of Malayan stock, with the Javanese the most advanced.

Agriculture engages about 70 per cent of the adult males. Rich in a variety of crops, the islands prior to World War II produced about 31 per cent of the world's copra, 37 per cent of its rubber, 83 per cent of its pepper, and nearly all of its quinine. The big-estate agriculture on Java and Sumatra is devoted mainly to export. The rest is subsistence agriculture. Rice is the staple food and chief crop. Major plantation crops are rubber, tea, coffee, cinchona bark, palm kernels, and sugar. Others are copra, cacao, spices, agava fiber, and kapok. In addition to rice, the chief food crops of the Republic are maize, cassava, sweet potatoes, peanuts, and soybeans.

In 1956 there were an estimated 4,073,000 cattle, 2,807,000 sheep, 1,378,000 hogs, 634,000 horses, and 2,962,000 buffalo.

Industry, especially in Java, developed rapidly after 1930. In addition to industries connected with the processing of the rich natural products, there were established chemical works, textile and paper mills, soap factories, breweries, shipyards, a Goodyear tire and rubber plant, and a General Motors assembly plant.

Indonesia is primarily an importer of consumer and capital goods and an exporter of mineral and plantation products.

Chief exports in 1956 were rubber (40%), petroleum and products (25%), tin (7%),

copra (4%), and tea (3%). Leading customers were Singapore (21%), the Netherlands (19%), the United States (16%), Britain (10%), and Malaya (3%); leading suppliers, the United States (16%), Japan (16%), the Netherlands (11%), western Germany (9%), and Britain (6%).

NATURAL FEATURES AND RESOURCES. A backbone of high mountain ranges with many snow-capped peaks extends throughout the main islands of the archipelago. Earthquakes are frequent, and there are many active volcanoes, ninety of them in Sumatra. Borneo is heavily forested.

Petroleum is the principal mineral product of modern Indonesia. The tin industry attained prewar levels more rapidly than others after World War II. Other important minerals include bauxite, coal, salt, nickel, and manganese.

Most valuable timber is teak, found mostly in east Java. Ebony, sandalwood, and ironwood also are cut.

Iran (Kingdom)

Area: 636,293 square miles.

Population (est. 1955)*: 21,794,000 (Iranian, Kurdish, Azerbaijani).

Density per square mile: 33.2.

Ruler: Mohammed Riza Pahlavi.

Premier: Manouchehr Eghbal.

Principal cities (est. 1950): Teheran, 618,976 (capital); Tabriz, 279,168 (manufacturing center); Isfahan, 196,134 (cotton, tobacco); Meshed, 191,794 (Moslem shrine); Hamadan, 123,931 (western trading center).

Monetary unit: Rial.

Languages: Iranian (Persian), Kurdish, Azerbaijani.

Religions: Moslem (Shiah), about 90%; Moslem (Sunni), about 5%; Armenian; Jewish; Nestorian; Parsi.

* U.N. estimate; no census ever taken.

HISTORY. Oil-rich Iran, was called Persia before 1935. Its key location blocks the lower land gate to Asia, and also stands in the way of traditional Russian ambitions for access to the Indian Ocean. After periods of Assyrian, Median, and Achaemenidian rule, Persia became a powerful empire under Cyrus the Great, reaching from the Indus to the Nile at its zenith in 525 B.C. It fell to Alexander in 331-30 B.C., to the Selucidae in 312-02 B.C., and to the Parthians about 130 B.C. A native Persian regime arose about A.D. 224, was weakened fighting the Turks, and fell to the Arabs in 637. In the twelfth century the Mongols took their turn ruling Persia, and in the early eighteenth century the Turks and Russians occupied it.

An Anglo-Russian convention of 1907 divided Iran into two spheres of influence. British attempts to impose a protectorate over all of Iran were defeated in 1919. On

Feb. 26, 1921, General Riza Pahlavi seized the government and was elected hereditary Shah in 1925. Subsequently he did much to modernize the country and abolished all foreign extraterritorial rights.

Increased pro-Axis activity led to Anglo-Russian occupation of Iran in August, 1941, and deposition of the Shah in favor of his son, Mohammed Riza Pahlavi.

In November, 1945, a Soviet-inspired autonomist movement won control of Azerbaijan, Iran's northwest province. To protect their advantage, the Russians kept troops in that area past the treaty evacuation date of March 2, 1946. The Iranians promptly protested this breach of agreement to the United Nations. The Russians evacuated their troops on May 6.

Ali Razmara became Premier June 26, 1950, and pledged to restore efficient and honest government, but he was assassinated Mar. 7, 1951. Mohammed Mossadeh took over April 29. Parliament completed action on a bill nationalized the oil industry over strong British protests, but Britain evacuated the oil refineries Oct. 3, 1951.

Mossadeh was ousted Aug. 19, 1953, in a coup d'état led by Fazollah Zahedi, whom the Shah had named Premier. The oil dispute was settled in Aug. 1954. Hussein Ala succeeded Zahedi as Premier on Apr. 7, 1955; Ala was succeeded by Manouchehr Eghbal April 3, 1957.

GOVERNMENT. Iran is a constitutional monarchy, and the Shah has the usual powers of the head of a parliamentary state. Executive power is exercised by a Cabinet headed by the Prime Minister, who is appointed by the Shah and is responsible to Parliament, the lower house of which (Majlis) has 136 popularly elected members and the upper house of which (Senate) has sixty members, half of whom are appointed by the Shah.

ECONOMIC CONDITIONS. Iran is predominantly agricultural. Large estates are numerous, and irrigation is common, especially on the central plateau. The principal crops are wheat and barley.

Other crops include rice, grapes, dates, apricots, tobacco, tea, cotton, sugar beets, and corn. There are extensive grazing lands. In 1955 there were an estimated 21,650,000 sheep.

Iran must still import many manufactured necessities, but several new factories were established by the government after 1925, including sugar plants, rice and oil mills, textile factories, a cement factory, copper smelter, glycerine factory, and small arms factory. Both sugar and tobacco are government monopolies. The manufacture of carpets, for which Iran is famous, is a valuable industry.

In 1953-54 the leading customers were the United States and Canada (23%), Germany (21%), and other continental European Payments Union countries (16%); leading suppliers, Germany (21%), other continental EPU countries (25%), and the United States and Canada (18%). The principal exports in 1952-53 were cotton (17%) and rugs (16%).

NATURAL FEATURES AND RESOURCES. Iran is, in general, a plateau averaging 4,000 feet elevation. In addition, there are maritime lowlands along the Persian Gulf and the Caspian Sea. The Elburz Mountains in the north rise to 18,603 feet at Mt. Demavend. From northwest to southeast, the country is crossed by a desert 800 miles long.

Considerable mineral wealth exists, but only oil is exploited commercially. The principal field, near Shushar in the southwest, was worked until 1951 by the Anglo-Iranian Oil Company. The latter's concession began in 1901 and was to run until 1993, but its properties were nationalized by the Iranian government in April, 1951. Production under Iranian control was negligible. Under an agreement signed Sept. 19, 1954, Iran's oil is being produced, refined and marketed by a consortium of eight western oil companies, with 50% of the profits going to Iran. The consortium began production Oct. 29, 1954.

The main forest belt on the northern Elburz slope supplies railroad ties, charcoal and firewood.

Iraq (Republic)

Area: 171,599 square miles.*

Population (est. 1957): 6,538,000 (Arab, 75%; Kurdish, 15%; Iranian, 3.75%; others, 6.25%).

Density per square mile: 30.3.

Premier: Abdel Karim Al-Kassim.

Principal cities (census 1947, cities proper): Baghdad, 364,049 (capital); Mosul, 203,273 (oil); Karbala, 122,719 (religious center); Basra, 94,000 (chief port).

Monetary unit: Dinar.

Languages: Arabic, Kurdish.

Religions (census 1947): Moslem, 93.6%; Christian, 3.1%; Jewish, 2.5%; others, .8%.

* Includes desert area of 80,583 square miles.

HISTORY. Iraq, a triangle of mountains, desert, and fertile river valley is bounded east by Iran, north by Turkey, west by Syria and Jordan, and south by Saudi Arabia. From earliest times it has been known as Mesopotamia—the land between the rivers—for it embraces a large part of the alluvial plains of the Tigris and Euphrates.

An advanced civilization existed in Mesopotamia by 4000 B.C. Sometime after 2000 B.C. it became the center of the ancient Babylonian and Assyrian empires. It was conquered by Cyrus the Great of Persia in

538 B.C., and by Alexander in 331 B.C. After an Arab conquest in A.D. 637-40, Baghdad became capital of the ruling caliphate. The country was cruelly pillaged by the Mongols in 1258, and during the sixteenth, seventeenth, and eighteenth centuries was the object of repeated Turkish-Persian competition.

Nominal Turkish suzerainty imposed in 1638 was replaced by direct Turkish rule in 1831. In World War I an Anglo-Indian force occupied most of the country, and Britain was given a mandate over the area in 1920. The British recognized Iraq as a kingdom in 1922 and terminated the mandate in 1932, when Iraq was admitted to the League of Nations. In World War II, Iraq generally adhered to its 1930 treaty of alliance with Britain, but in 1941 British troops were compelled to put down a pro-Axis revolt led by Prime Minister Rashid Ali. Iraq became a charter member of the Arab League in March, 1945, and Iraqi troops took part in the Arab invasion of Palestine in 1948. The 1930 treaty of alliance with Britain was terminated in April, 1955, and replaced by a defense co-operation agreement.

King Faisal II, born on May 2, 1935, succeeded his father, Ghazi I, who was killed in an automobile accident on April 4, 1939. King Faisal and his uncle, Crown Prince Abdul-Ilah, were assassinated in August, 1958, in a swift revolutionary coup which brought to power a military junta more sympathetic to the United Arab Republic and its President, Gamal Abdel Nasser. The short-lived "Arab Union" formed by the federation of Iraq and Jordan in February, 1958, came abruptly to an end with the recognition by the U.A.R. of the rebel government of Iraq.

(For other developments see article on the Middle East in *World Politics* section.)

ECONOMIC CONDITIONS. The chief economic activity is agriculture, dependent upon irrigation and confined to the valleys of the Tigris and Euphrates. Iraq supplies about 80 per cent of the world's dates. Chief among the cereal products of Iraq are barley, wheat, rice, sorghum, maize, and millet. Many fruits and some tobacco and cotton are grown. Grazing is the principal occupation of the many nomadic and seminomadic tribes.

Industry is still embryonic. Of some 100 firms, the most important are those making brick, tile, woolen textiles, vegetable oils, soap, glass, and cigarettes.

Chief exports in 1956 were petroleum (92%), barley (3%), and dates (1%). Leading suppliers in 1955 were Britain (28%), the United States (15%), and Japan (8%); leading customers, France (23%), Italy (19%), and Britain (12%).

The only port for seagoing vessels is that of Basra, located on the Shatt al-'Arab River near the head of the Persian Gulf. **NATURAL FEATURES AND RESOURCES.** Iraq has arid desertland west of the Euphrates, a broad central valley between the Euphrates and Tigris, and mountains in the northeast. The fertile lower valley is formed by the delta of the two rivers, which join about 120 miles from the head of the Persian Gulf. The gulf coast line is 26 miles.

Oil production is concentrated at the Baba Gurgur fields near Kirkuk, which are operated on behalf of an international group by the British-managed Iraq Petroleum Company. Associated companies operate fields at Zubair and Rumaila near Basra and at Ain Zalah and Butmah. The Khanaqin Oil Company, a British Petroleum subsidiary, operates another field which produces only for local consumption.

Oil is piped to Tripoli in Lebanon, Banjyas in Syria, Fao on the Persian Gulf, and Haifa in Israel (suspended in 1948). The Iraqi government received \$206,500,000 in oil revenues in 1955.

Ireland (Republic)

Area: 26,601 square miles (not including larger water bodies).*

Population (census 1957): 2,885,000 (almost entirely Irish).

Density per square mile: 108.8.

President: Séan T. O'Kelly.

Prime Minister: Éamon de Valera.

Principal cities (census 1956)†: Dublin (Baile Atha Cliath), 537,878 (capital); Cork, 79,945 (seaport); Limerick (Luimneach), 50,869 (seaport); Dun Laoghaire (Kingstown), 47,335 (seaport).

Monetary unit: Irish pound.

Languages: Gaelic, English.

Religions (census 1946): Roman Catholic, 94.3%; Protestant Episcopal, 4.2%; Presbyterian, .8%; others, .7%.

* Total area: 27,136 square miles.

HISTORY. About the beginning of the Christian Era, Ireland was divided into five kingdoms, each with its own ruler, but each subject to the overlord of all Ireland who dwelt at Tara. St. Patrick introduced Christianity in A.D. 432.

Norse depredations along the coasts, starting in 795, ended in 1014 with Norse defeat at the Battle of Clontarf by forces under Brian. In the middle of the 12th century, the Pope gave all Ireland to the English Crown as a papal fief. In 1171 Henry II of England was acknowledged "Lord of Ireland," but local sectional rule continued for centuries, and English control over the whole island was not reasonably absolute until the 17th century. By the Act of Union (1800), England and

Ireland became the "United Kingdom of Great Britain and Ireland."

The great potato famine of 1846-48 took many lives and drove millions to emigrate to America.

GOVERNMENT. Ireland is a sovereign, independent republic. The President, directly elected for seven years, names the Prime Minister on the nomination of the Chamber of Deputies. Parliament (Oireachtas) has two houses. The Chamber of Deputies (Dáil Eireann) has 147 members elected by proportional representation for a five-year term. The Senate (Seanad Eireann) has 60 members, of whom 11 are named by the Prime Minister, 6 by the universities, and 43 from vocational panels. Its powers, however, are limited.

ECONOMIC CONDITIONS. The majority of the people are English speaking, although the government has attempted to promote the traditional Gaelic language, which is an essential part of the curriculum for all state schools.

Principal crops are wheat, oats, potatoes, sugar beets. Other staple crops are rye, flax, turnips, cabbage and hay. Livestock in June 1956 included 4,536,500 cattle, 3,439,300 sheep and 747,100 hogs.

Leading manufactures are ordinarily beverages, tobacco, wood, paper, clothing, textiles and metals. The hydroelectric plant erected on the Shannon River in County Limerick provides cheap electricity for homes and factories.

The United Kingdom (including Northern Ireland) was the leading customer in 1956 (81%). The United Kingdom was also the chief supplier (57%), followed by the U. S. (8%) and western Germany (4%). Major exports were live animals (42%), beef and veal (6%), beer (5%) and chocolate crumb (5%). Major imports were oils, fats, resins and gums, textiles, machinery and vehicles.

NATURAL FEATURES AND RESOURCES. Occupying the entire island except for the six northern countries of Ulster, Ireland resembles a basin—a central plain rimmed with mountains, except in the Dublin region. The mountains are low, with the highest peak, Carrantuohill located in Kerry County, rising to a height of 3,415 feet.

The principal river is the Shannon, which begins in the north central area, flows south and southwest for about 240 miles and empties into the Atlantic. About 20 per cent of the country is covered by bogs. Among the many lakes are the famous Lakes of Killarney in the southwest county of Kerry.

Ireland mines coal and gypsum.

Israel (Republic)

Area: 7,984 square miles.

Population (est. 1957): 1,924,000 (1953: Jewish, 88.9%; Moslem, 7.6%; Christian, 2.5%; others, 1.0%).

Density per square mile: 234.5.

President: Itzhak Ben-Zvi.

Premier: David Ben-Gurion.

Principal cities (est. Dec. 31, 1956): Tel Aviv-Jaffa, 371,000 (industrial center); Haifa, 160,000 (chief port); Jerusalem (Israeli sector), 149,440 (capital).

Monetary unit: Israeli pound (£I).

HISTORY. The history of Palestine, cradle of two of the great religions of the world, and homeland of the modern state of Israel, is mostly a chronicle of invasion, conquest, and confusing divisions. To the ancient Hebrews it was known as the "Land of Canaan"; the name Palestine is derived from that part of the country inhabited by the Philistines of Biblical times. About 1000 B.C. the Hebrews succeeded in establishing a single monarchy, which later splitting up into two kingdoms—Judah and Israel. The country was subsequently invaded and overcome by many peoples, including the Assyrians, Babylonians, Egyptians, Persians, Macedonians, Romans, and Byzantines. In A.D. 634–36, Palestine was wrested from the Byzantine Empire by the Arabs. Frankish Crusaders captured Jerusalem in 1099 and set up a feudal kingdom which endured until the defeat of the Franks by Saladin (1187) and the restoration of Moslem rule. In 1516 suzerainty over the area was transferred from the Mamelukes of Egypt to the Turks. It remained part of the Ottoman Empire until World War I, when British forces under General Allenby defeated the Turks and captured Jerusalem (Dec. 9, 1917). The League of Nations mandate awarded to Great Britain was put in force on Sept. 29, 1923.

Meanwhile, a movement had been founded in 1897 by Theodor Herzl to create a Jewish homeland in Palestine, and a considerable number of Jewish immigrants had entered the country prior to World War I. On Nov. 2, 1917, British recognition was given both to the growing Arab nationalist movement and to Zionist aspirations by the Balfour Declaration.

A British royal commission report July 7, 1937, recommended partition of Palestine into an Arab and a Jewish state separated by a mandated area in the vicinity of Jerusalem and at Nazareth. The Arabs opposed the proposal, advocating instead the establishment of an independent Palestine with full minority rights for the Jews. In May, 1939, the British government issued a White Paper declaring the establishment of a Jewish state contrary to British obligations to the Arabs and promising, after a transitory period of ten years, the establishment of an independ-

ent Palestine in which Arabs and Jews would share authority in government. During the next five years, 75,000 Jews were to be allowed to enter Palestine. These proposals did not satisfy either party, but the outbreak of World War II overshadowed all other issues.

End of European hostilities in 1945 brought a renewal of friction and the formation of the Arab League. Attempts to bring Jewish immigrants into Palestine illegally were intensified thereafter, and terrorism grew apace.

Termination of the British mandate May 14, 1948, and withdrawal of British forces brought new violence. An independent state of Israel was immediately proclaimed by the Jewish National Council, and Arab forces converged on Palestine from the south, north, and east, spearheaded by the crack British-trained Arab Legion of King Abdullah of Jordan. Within a few hours Arab-Jewish hostilities were in full swing. On June 11, however, there went into effect a four-week truce supervised by Count Folke Bernadotte, Swedish U. N. mediator in Palestine. Fighting resumed on July 9, with Israeli forces gaining on all fronts except in Jerusalem, part of which had been taken by Jordanian troops prior to the truce. On July 17 a second truce was effected on order of the U. N. Security Council. Bernadotte was assassinated on Sept. 17 by unidentified Jewish terrorists and his duties were taken over by Dr. Ralph Bunche of the United States. A final cease-fire took effect on Jan. 7, 1949, and an armistice agreement was concluded with Egypt on Feb. 24 and with Jordan on April 3.

During the hostilities Israel lost none of the territory allotted to it under the partition plan and increased that territory by about 50% by gaining western Galilee, a broad corridor to Jerusalem through central Palestine and part of modern Jerusalem. In April, 1950, Jordan incorporated eastern and central Palestine, including the Old City of Jerusalem.

Israel's governmental structure took shape rapidly. The provisional leaders, Chaim Weizmann and David Ben-Gurion, were confirmed as President and Premier, respectively. Recognized by most non-Arab countries, the new nation was admitted to the U. N. on May 11, 1949.

Despite many Cabinet crises, Ben-Gurion's government met with increasing success the problems arising out of an unfavorable trade balance, large numbers of immigrants and need for foreign capital investment and additional industries.

Dr. Weizmann died Nov. 9, 1952, and Itzhak Ben-Zvi was elected to succeed him as President on Dec. 8.

Israeli troops invaded Egypt on Oct. 29, 1956, and quickly took the Gaza strip and

almost all the Sinai peninsula up to the Suez canal. Following U. N. intervention they were gradually withdrawn.

(For recent history see article on the Middle East in *World Politics* section.)

GOVERNMENT. The Israeli Constitution adopted by the Constituent Assembly in 1949 provides a republican form of government headed by a President elected for a 5-year term by the Chamber of Deputies. Legislative power is vested in the Chamber of Deputies, the members of which are elected by the vote of all citizens who have reached the age of 21. The government is administered by the Cabinet, which is headed by the Premier and is responsible to the Chamber of Deputies.

The Constitution characterizes Israel as the national home of the Jewish people and directs the admission of every Jew who desires to settle within its borders, subject to control of the Chamber of Deputies.

ECONOMIC CONDITIONS. Agriculture is the chief economic activity. The maritime plain, the plain of Esdraelon and the northern Jordan valley are the principal agricultural areas. Citrus growing, confined largely to the maritime plain, normally furnishes the major export crop. Others include olives, rice, fruits and vegetables, figs, tobacco, wheat, barley, corn, sesame, and potatoes. There are many collective rural settlements.

Industry is developing rapidly, especially the food-processing, textile, metalworking, and chemical groups. Diamond cutting, although dependent on rough diamond imports, is of major importance; and there are oil refineries and storage tanks at Haifa, a terminus of the pipeline from the Iraqi oil fields (suspended since 1948).

Chief exports in 1956 were citrus fruits (41%) and polished diamonds (23%). Leading customers were Britain (21%), the United States (17%), and Belgium (6%); leading suppliers, the United States (31%), western Germany (18%), and Britain (10%). Leading imports were wheat (7%), rough diamonds (6%), and iron and steel bars (3%).

NATURAL FEATURES AND RESOURCES. Northern Israel is largely a plateau traversed from north to south by mountains and broken by great depressions, also running from north to south.

The maritime plain of Israel is remarkably fertile, but the southern Negeb region, which comprises almost half the total area, is largely a wide desert steppe area. The Jordan, the only important river, rises in Syria and flows along the Jordan border through the Hule marshes and lake and the Sea of Tiberias (Galilee) into Jordanian Palestine and thence into the Dead Sea, 1,290 feet below sea level.

Mineral resources are limited. They include gypsum, sulfur, limestone, and rock salt, together with potash and bromine from the Dead Sea.

Italy (Republic) (Repubblica Italiana)

Area: 116,316 square miles.

Population (est. Dec. 1, 1956): 48,353,000 (predominantly Italian).

Density per square mile: 415.5.

President: Giovanni Gronchi.

Premier: Amintore Fanfani.

Principal cities (census 1951): Rome, 1,606,739 (capital); Milan, 1,264,402 (leading financial, industrial center); Naples, 1,003,815 (seaport); Turin, 711,492 (auto works); Genoa, 678,200 (seaport); Palermo, 482,594 (Sicilian seaport).

Monetary unit: Lira.

Religions: Roman Catholic, 99.6%; others (Protestant, Orthodox, Jewish), 4%.

HISTORY AND GOVERNMENT: Until A.D. 476, when the German Odoacer became head of the Roman Empire in the west, the history of Italy was largely the history of Rome. From A.D. 800 on, the Holy Roman Emperors, the Popes, Normans and Saracens all vied for control over various segments of the Italian peninsula. Numerous city states, such as Venice and Genoa, and many small principalities flourished in the late Middle Ages.

In 1713, after the War of the Spanish Succession, Milan, Naples, and Sardinia were handed over to Austria, but the Hapsburg influence on the peninsula was interrupted for a short time after 1800 when Italy was unified by Napoleon, who crowned himself King of Italy on May 26, 1805. After the Congress of Vienna in 1815, Austria continued to be the dominant power in Italy. (For recent history, see *World Politics* section.)

PEACE TREATY OF 1947. The peace treaty which took effect Sept. 15, 1947, required Italian renunciation of all claims in Ethiopia and Greece, and the cession of the Dodecanese to Greece and of five small Alpine areas to France. In addition, the major part of the Istrian peninsula, including Fiume and Pola, went to Yugoslavia. The Free Territory of Trieste was carved out of the area to the west of the new Yugoslav frontier.

Italy was to pay reparations of \$100,000,000 in kind over a seven-year period to the Soviet Union, \$125,000,000 to Yugoslavia, \$105,000,000 to Greece, \$25,000,000 to Ethiopia and \$5,000,000 to Albania; also to make two-thirds restitution for war-time damage to Allied property in Italy.

Zone A of Trieste (90 sq. mi.), including the city of Trieste, was transferred to

Italy in Oct., 1954, and the remainder to Yugoslavia.

RELIGION. Although the country is predominantly Roman Catholic, religious freedom is permitted. Catholic religious teaching is given in all elementary and intermediate schools. Relations with the Church are regulated by the treaty with the Holy See of Feb. 11, 1929, which established the temporal power of the Pope over Vatican City.

ECONOMIC CONDITIONS.

Agriculture. Agriculture engages more than a third of the population. It is extremely diversified; differences of altitude, soil, and climate allow the production of all European crops from rye to rice, from apples to oranges, and from hemp to cotton. Italy ranks next to France in wine production, and next to Spain in olive oil production.

Livestock and dairy farming are important in Italy. Of the 50-odd varieties of Italian cheese, the best known are the hard parmesan and pecorino (the latter made from ewe's milk) and the soft *bel paese* and *gorgonzola*. In 1956 Italy had 8,670,000 cattle, 9,042,000 sheep, and 3,746,000 hogs.

Industry. Industrial production is centered in the north. The nature of the fascist corporate state had a tendency to foster industrial concentration prior to World War II. The textile industry is the largest and most important and supplies the home market as well as furnishing a large proportion of Italy's exports. The metal industries are handicapped by lack of coal, which must be imported in large quantities, and by insufficient iron ore reserves. The chemical, clothing and food industries are also important. Italy is a member of the European Coal and Steel Community.

Production includes cotton yarn, woven cotton fabrics, rayon yarn, pig iron and ferroalloys, raw steel, cement, automobiles, and trucks.

Trade. Italy's leading customers by value in 1956 were western Germany (13%), the U. S. (10%), Switzerland (7%), and France (7%). Main suppliers were the U. S. (16%), western Germany (12%), Britain (5%), Iraq (5%) and France (5%). Leading exports were machinery and vehicles, fruits and vegetables, synthetic fibers and manufactures and cotton and manufactures. Leading imports included cotton, coal and coke, wool, grain and petroleum and products.

NATURAL FEATURES AND RESOURCES.

Approximately 600 of boot-shaped Italy's 708 miles of length are in the long peninsula that projects into the Mediterranean from the fertile basin of the Po River. The Apennines, branching off from the Alps between Nice and Genoa, form the penin-

sula's backbone, and rise to a maximum height of 9,560 feet at the Gran Sasso d'Italia (Corno). The Alps are Italy's northern boundary.

Several islands form part of Italy. Sicily, 9,926 square miles, lies off the toe of the boot, across the Strait of Messina, with a steep and rock-bound northern coast and gentler slopes to the sea in the west and south. Mt. Etna, an active volcano, rises to 10,741 feet, and most of Sicily is more than 500 feet in elevation. Sixty-two miles southwest of Sicily lies Pantelleria, 45 square miles, and south of that are Lampedusa and Linosa. Sardinia, 9,301 square miles, just south of Corsica and about 125 miles west of the mainland, is mountainous, stony, and unproductive.

Italy has many northern lakes, lying below the snow-covered peaks of the Alps. The largest are Garda (143 sq. mi.), Maggiore (83 sq. mi.), and Como (55 sq. mi.). The Po, the principal river, flows from the Alps on Italy's western border and crosses the Lombard plain to the Adriatic.

Natural Resources. Italy is ordinarily the world's largest producer of mercury; it is also an important producer of sulfur. The nation lacks, however, the staple minerals of coal, oil and iron, and is forced to import them. Building stone, particularly marble, is plentiful.

In the south Tirol and in the central Apennines, abundant hydroelectric power resources and deposits of natural gas are being increasingly exploited.

Japan (Empire)

(Nippon)

Area: 142,801 square miles.

Population (est. 1957): 90,900,000.

Density per square mile: 630.4.

Ruler: Emperor Hirohito.

Premier: Nobusuke Kishi.

Principal cities (census 1955): Tokyo, 6,966,499 (capital; financial, manufacturing center); Osaka, 2,547,321 (chief industrial center); Nagoya, 1,336,779 (machinery, textiles); Kyoto, 1,204,017 (manufacturing); Yokohama, 1,143,287 (seaport); (census 1950) Kobe, 765,435 (seaport, shipbuilding); Fukuoka, 392,649 (seaport, textiles); Sendai, 341,685 (manufacturing, educational center).

Monetary unit: Yen.

Language: Japanese.

Religions (1938): Buddhism, 60%; Shintoism, 21%; Protestant (215,166); Roman Catholic (118,856).

HISTORY AND GOVERNMENT. A series of legends attributes creation of Japan to the sun goddess, from whom the later emperors were allegedly descended. The first of them was Jimmu Tennō, supposed to have ascended the throne on Feb. 11, 660 B.C.

Recorded Japanese history begins with the first contact with China in the 5th century A.D. Japan was then divided into strong feudal states, all nominally under the Emperor, but with real power often held by a court minister or clan. In 1185 Yoritomo, chief of the Minamoto clan, was designated Shogun (Generalissimo) with the actual administration of the islands under his control. A dual government system—Shogun and Emperor—persisted till 1867.

First contact with the West came about 1542, when a Portuguese ship off course arrived in Japanese waters. Portuguese traders, Jesuit missionaries, and Spanish, Dutch, and English traders followed. Suspicious of Christianity and of Portuguese support of a local Japanese revolt, the shoguns restricted all foreigners in 1636-38 except the Dutch, who were confined to Nagasaki. Western attempts to renew trading relations failed until 1853, when Commodore Matthew Perry sailed an American fleet into Tokyo Bay.

Japan now quickly made the transition from a medieval to a modern power. Feudalism was abolished and industrialization was speeded. An imperial army was established with conscription. The shogun system was abolished in 1867 by Emperor Meiji, and parliamentary government was established in 1889. After a brief war with China in 1894-95, Japan acquired Formosa (Taiwan), the Pescadores islands, and part of southern Manchuria. China also recognized the independence of Korea (Chosen), which Japan later annexed (1910).

In 1904-05 Japan defeated Russia in the Russo-Japanese War, gaining the territory of southern Sakhalin (Karafuto) and Russia's port and rail rights in Manchuria. In World War I, Japan, which took a negligible part in military operations, seized Germany's Pacific islands and leased areas in China. The Treaty of Versailles then awarded her a mandate over the islands.

At the Washington Conference of 1921-22, Japan agreed to respect Chinese national integrity. The series of Japanese aggressions which was to lead to the nation's downfall began in 1931 with the invasion of Manchuria. The following year, Japan set up this area as a puppet state, "Manchukuo," under Emperor Henry Pu-Yi, last of China's Manchu dynasty. On Nov. 25, 1936, Japan joined the Axis by signing the anti-Comintern pact. The invasion of China came the next year, and the Pearl Harbor attack on Dec. 7, 1941.

For many months after Pearl Harbor, the Japanese army and navy enjoyed spectacular success, but by the end of 1942 the tide had begun to turn. Three years later the dropping of the world's first atomic bomb in combat on Hiroshima, followed by

a second one on Nagasaki, knocked Japan swiftly into surrender.

The formal surrender took place Sept. 2, 1945, aboard the battleship *Missouri* in Tokyo Bay. Southern Sakhalin and the Kurile Islands reverted to Russia, and Formosa (Taiwan) and Manchuria to China. The Pacific islands remained under U. S. occupation.

General of the Army Douglas MacArthur was appointed Supreme Commander for the Allied Powers (SCAP) Aug. 14, 1945. An 11-power (later 13-power) Far Eastern Commission was created to lay down occupation policies, while the 4-power Allied council advised and consulted with SCAP in carrying them out.

Ruler. Emperor Hirohito, born April 29, 1901, succeeded his father, Yoshihito, on Dec. 25, 1926. He was married on Jan. 26, 1924, to Princess Nagako, born in 1903. To them were born two sons, Crown Prince Akihito (Dec. 23, 1933) and Prince Masahito (Nov. 28, 1935), and 5 daughters. Succession to the Japanese throne is in the male line only.

ECONOMIC CONDITIONS.

Agriculture. Japan is traditionally a land of small farms and, except in Hokkaido, the northernmost island, there is almost no large-scale farming and animal husbandry. The average holding is less than three acres. Double cropping makes self-sufficiency possible, but on a low level of subsistence.

In 1956 there were 3,202,000 cattle, 1,160,000 hogs, and 893,000 sheep.

Industry. Prewar Japan was one of the world's leading industrial nations and the only country in the Far East with highly developed textile, steel, machinery, chemical, and electrical industries. The textile industry was dominant, but after 1931 considerable expansion took place in the heavy industries—metal, machinery-building, and chemical—which were adaptable to war purposes.

Postwar industrial rehabilitation proceeded slowly at first, but by the end of 1956 average industrial output was more than twice the 1934-36 level. Japan led the world in shipbuilding in 1956, completing vessels aggregating 1,538,000 gross tons, many of them super tankers.

The huge interlocking monopolies (*Zai-batsu*), controlling prewar business and finance, were dissolved in 1945, and reconcentration was prohibited by postwar legislation.

Trade. Before World War II, Japan ranked fifth in world trade. Private trade was resumed in 1947; by the mid-1950s, Japan had regained its place in world trade.

Leading customers in 1956 were the United States (22%), Hong Kong (5%), India (4%), and Malaya (3%); leading suppliers, the United States (33%), Australia (8%), Canada (4%), and Malaya (4%). Leading exports were textiles (35%), machinery (19%), iron and steel and manufactures (9%), and chemicals (4%). Imports included raw cotton (15%), petroleum and products (10%), wool (7%), wheat (5%), and iron ore (5%).

Communications. Before World War II the merchant marine carried almost 80 per cent of the foreign trade and was surpassed only by those of the United States and Britain. Wartime losses were enormous, but recovery was fairly steady. By June 30, 1956, there were 1,891 vessels (100 tons and over) with a gross tonnage of 4,075,481, according to *Lloyd's Register*.

NATURAL FEATURES AND RESOURCES. Japan's four main islands are Honshu, Hokkaido, Kyushu, and Shikoku. The Ryukyu chain to the southwest is U. S.-occupied and the Kuriles to the northeast are Russian-occupied. The surface of the main islands consists largely of mountains separated by narrow valleys. There are about fifty more or less active volcanoes, including famous Fujiyama near Tokyo (12,385 ft.).

Minerals. Japan is relatively poor in minerals, and large imports of coal, petroleum, and iron ore are necessary. Other minerals include lead, silver, gold, and copper.

Jordan (Hashemite Kingdom of)

Area: 37,264 square miles.*

Population (est. 1956): 1,471,000.*

Density per square mile: 39.5*

Ruler: King Hussein I.

Prime Minister: Samir El-Rifal.

Principal cities (est.): Amman, 202,000 (capital); Jerusalem (Jordanian sector), 75,000 (religious center).

Monetary unit: Jordanian dinar.

Language: Arabic.

Religions: Moslem (Sunni), 92%; Christian, 8%.

* Including Arab Palestine (area: 2,125 sq. ml.; population 1953, 745,786).

HISTORY AND GOVERNMENT. An ancient land, Jordan was known in the time of Moses as Edom and Moab. It passed to the Amorites of Damascus and in A.D. 106 became part of the Roman province of Arabia. In 633-36 it was conquered by the Arabs.

Conquered from the Turks by the British in World War I, Jordan was separated from the Palestine mandate in 1920, and placed in 1921 under the rule of Abdullah ibn Hussein.

In 1923 Britain recognized Jordan's independence, subject to the mandate. In 1946, Britain abolished the mandate and recognized the independence of Jordan. That part of Palestine occupied by Jordanian troops was formally incorporated by action of the Jordanian Parliament on Apr. 24, 1950. Jordan's rejection of the Baghdad pact in Dec., 1955, set off a period of instability and tension.

Abdullah was assassinated June 20, 1951. His son Talal was deposed as mentally ill Aug. 11, 1952. Talal's son Hussein, born May 2, 1935, succeeded him. Jordan is a constitutional monarchy.

Defense of the country is entrusted to the British-trained Arab Legion of about 20,000 men, the most effective force among all Arab armies. The Anglo-Jordanian treaty of Mar. 20, 1948, was terminated Mar. 13, 1957. Jordan had ousted the Legion's British commander on March 2, 1956, and Britain recalled most of its remaining military officers. In Jan. 1957 Egypt, Saudi Arabia, and Syria agreed to provide the equivalent of the former British defense subsidy. In February, 1958, Jordan and Iraq united to form the "Arab Federation," subsequently called the "Arab Union," but this federation came abruptly to an end with the revolutionary coup in Iraq in August, 1958.

(For recent history see article on the Middle East in *World Politics* section.)

ECONOMIC CONDITIONS. Life in Jordan is primitive; there are estimated to be 50,000 nomads and 120,000 seminomads. At least 95 per cent of the total area is desert.

Most of the country is suitable only for pasturing sheep, goats, and camels. Cultivated land is limited to a relatively small area west of the Hejaz Railway. In the drier cultivated areas of the plateau, the inhabitants retain tribal organization and still live in tents. Foreign trade is limited to the exchange of wheat, fresh fruit, wool, and live animals for sugar, tea, and other necessities.

Korea (Chosen; Chosŏn)

Area: 85,266 square miles.

Population (est. 1955): 28,600,000 (almost entirely Korean).

Density per square mile: 335.4.

President, South Korea: Syngman Rhee.

Premier, North Korea: Kim Il-sung.

Principal cities (est. 1955): Seoul, 1,300,000 (capital, south Korea); Pusan, 840,000 (chief port); (est. 1952) Pyongyang, 500,000 (capital, north Korea); (est. 1949) Taegu, 313,705 (silk center); Inchon, 265,767 (seaport).

Monetary unit: Hwan.

Languages: Korean, Chinese, Japanese.

Religions: Buddhist, Confucianist, Taoist, Christian (500,300 Christians in 1938).

HISTORY. According to myth, Korea, a peninsula about 600 miles long, was founded in 2,333 B.C. by Tangun. His dynasty is said to have ruled until 1122 B.C. when a Chinese sage, Kija, established a dynasty supposed to have ruled until 193 B.C. Later, three kingdoms were established, one of which (Silla) absorbed the other two in 666-668 A.D. In 1627, the Manchus seized Korea and placed it again under Chinese sovereignty.

In the Chinese-Japanese War of 1894-95, Japan won predominant influence in Korea, and in 1910 Japan formally annexed it. A Korean bid for independence was crushed ruthlessly in 1919.

In Aug., 1945, at the end of World War II, Korea was occupied by Soviet and U. S. troops. The United States and the U.S.S.R. were unable to agree on the formation of an all-Korean provisional government, and in Nov., 1947 the U. N. General Assembly set up a commission, boycotted by the U.S.S.R., to arrange for elections. Elections were held in the U. S. zone on May 10, 1948, for a national assembly, which on July 12 adopted a republican Constitution and on July 20 elected Syngman Rhee President. The new republic was proclaimed on Aug. 15 and was recognized as the legal government of Korea by the U. N. General Assembly on Dec. 12, 1948. Meanwhile, a North Korean "People's Republic" had been formed in the Soviet zone north of the 38th parallel on May 1, 1948. It claimed jurisdiction over all of Korea.

On June 25, 1950, South Korea was attacked by North Korean communist forces. U. S. armed intervention was ordered on June 27 by Pres. Truman and on the same day the U. N. invoked military sanctions against North Korea. Gen. Douglas MacArthur was named commander of U. N. forces on July 7. U. S. and South Korean troops fought a heroic holding action, but by the first week of August, they had been forced back to a 4,000 sq. mi. beachhead in southeast Korea. There they stood off superior North Korean forces until Sept. 15, when a major U. N. amphibious attack was launched far behind the communist lines at Inchon, port of Seoul. By Sept. 30, U. N. forces were in complete control of South Korea; they then invaded North Korea and were nearing the Manchurian and Siberian borders when several hundred thousand Chinese communist troops entered the conflict in late October. U. N. forces then retreated successfully below the 38th parallel, where they repulsed several major attacks.

On May 24, 1951, U. N. forces recrossed the parallel and had made important new inroads into North Korea when truce negotiations began on July 10. An armistice was finally signed at Panmunjom on July 27, 1953, leaving a devastated Korea in need

of large-scale rehabilitation. The armistice contemplated an international political conference on the status of Korea, but negotiations for arranging it broke down. The question was discussed without result at the Geneva conference on Far Eastern problems (April 26-June 19, 1954).

The U. S. and South Korea signed a mutual defense treaty on Oct. 1, 1953, and in Aug. 1953 the U. S. Congress authorized up to \$200,000,000 for rehabilitation and economic support of South Korea.

ECONOMIC CONDITIONS. The Korean population is more or less homogeneous and successfully withstood Japanese efforts to assimilate it. South Korea has 43 per cent of the peninsula's area and over two-thirds of its population. Korea is predominantly agricultural.

Industrial development was speeded in the last years of Japanese rule. The leading industries by value of output ordinarily are chemical, textile, food, beverage, and tobacco. Korea north of the 38th parallel has by far the larger portion of the country's industry and abundant hydroelectric resources.

Korea's prewar foreign trade was closely linked with that of Japan. South Korea's postwar trade has been financed to a large extent by U. S. funds. Most of the trade is with the United States, Japan, and Hong Kong. Chief imports were foods and manufactured goods; chief exports, raw materials, including tungsten, graphite, and raw silk. North Korea's trade is chiefly with Communist China and the U.S.S.R.

South Korea is insolvent and dependent on U. S. and other contributions.

NATURAL FEATURES AND RESOURCES. Korea's coast, with a rugged mountain range along the east, is fringed with more than a thousand islands. Several rivers are navigable for more than a hundred miles, including the Nakdong in the south, the Han in the central region, and the Yalu in the northwest, on the Manchurian border.

Korea's best mining regions are in the north. Leading products are coal, gold, silver, copper, tungsten ore, iron ore, graphite, lead, alum stone, and pyrite ore.

Laos (Kingdom)

Area: 91,500 square miles.
Population (est. 1955): 1,425,000.
Density per square mile: 15.6.
Ruler: King Sisavang Vong.
Premier: Prince Savanna Phuma.
Principal cities (est. 1953): Vientiane, 20,000 (administrative capital); Luangprabang, 15,000 (royal capital).
Monetary unit: Kip.
Language: Laotian.
Religion: Buddhist.

HISTORY AND GOVERNMENT. Sparsely settled Laos occupies the northwestern portion of Indo-China. In the fourteenth century, a unified Lao kingdom of Lanxang was constituted on both sides of the Mékong river. It was divided in the seventeenth century into the two kingdoms of Vientiane, which was annexed by Siam in 1827, and Luangprabang, which recognized Siamese suzerainty shortly thereafter. In 1893 both kingdoms passed to France.

Laos was reunited in 1947 as a constitutional monarchy under the Luangprabang dynasty. In 1950 it became an associated state in the French Union. The transfer of sovereignty was completed by the Paris agreements of Dec. 29, 1954.

SOCIAL AND ECONOMIC CONDITIONS. About half the people are Laotians who live mainly in the Mékong valley, and half are mountain tribes of Chinese and Indonesian extraction. There are sizable Chinese and Vietnamese minorities.

About 95% of the people are farmers. The chief food crop is rice; others are maize, vegetables, cotton, cardamons, and tobacco. The leading exports are benzoin, coffee, opium, and lac; cattle and teak are also exported. Laos is the least developed of the former Indo-Chinese states and has little modern industry. Tin is the only mineral of importance. The northern forests are rich in valuable timber, notably teak; the logs are floated down the Mékong. The latter, in spite of rapids, is the chief transportation route.

Latvia

Area: 24,600 square miles.

Population (est. 1956): 2,000,000 (1940: Lettish, 75.5% [1950: 58%]; Russian, 12%; German, 3.2%; Polish, 2.5%; others, 6.8%).

Density per square mile: 81.3.

Principal cities (est. 1956): Riga, 565,000 (capital); Liepaja, 80,000 (seaport).

Language: Latvian.

Religions (census 1930): Lutheran, 56.6%; Roman Catholic, 23.7%; Greek Orthodox, 8.9%; others, 10.8%.

Descended from ancient Aryan stock, the Latvians were early tribesmen who settled along the Baltic Sea and, lacking a central government, fell an easy prey to more powerful peoples. The German Teutonic Knights first conquered them in 1158 and ruled the area as two states—Livonia and Courland. Poland conquered the territory in 1562 and ruled until 1795 in Courland; control of Livonia was disputed between Sweden and Poland from 1562 to 1629. Sweden controlled Livonia from 1629 to 1721. Russia took over Livonia in the latter year, and Courland after the third partition of Poland in 1795. From that time

until 1918, the Latvians remained Russian subjects, although they preserved their language, customs, and folklore. The Russian Revolution of 1917 gave them their opportunity for freedom, and the Latvian republic was proclaimed on Nov. 18, 1918.

The republic lasted little more than twenty years. It was occupied by Russian troops in 1939 and incorporated into the U.S.S.R. in 1940. German armies occupied the nation from 1941 to 1943-44, when they were driven out by the Russians. Most countries, including the United States, have refused to recognize the Soviet annexation of Latvia.

Lebanon (Republic)

Area: 4,015 square miles.

Population (est. 1957): 1,525,000 (Arabic, Armenian, Circassian, Turk).

Density per square mile: 361.1.

President: Fouad Chehab.

Premier: Rashid Karami.

Principal cities (est. 1954): Beirut, 375,000 (capital, chief port); Tripoli, 120,000 (oil pipe-line terminus).

Monetary unit: Lebanese pound (£L).

Languages: Arabic, French.

Religions (est. 1954): Christian, 54%; Moslem, 44%; others, 2%.

HISTORY AND GOVERNMENT. In ancient times Lebanon was the mountainous hinterland of the Phoenician coast towns. From the seventh to the eleventh centuries there infiltrated into southern Lebanon the heretics of Islam who finally coalesced into the Druse community.

In the nineteenth century the Turkish Sultanate encouraged the Druses to wage civil war against the Christian Maronites. After a massacre of 2,500 Christians in 1860, Lebanon was occupied by the French for a year. From 1864 to 1914, a Christian military government ruled the area under nominal Turkish sovereignty. After World War I, France received a League of Nations mandate over Syria and Lebanon. The French drew a Lebanese border in 1920 to offset predominantly Moslem Syria and proclaimed the area a republic under French control on May 23, 1926. Complete independence came on Nov. 26, 1941. Lebanon joined the Arab League and took part in the invasion of Palestine on May 15, 1948.

(For landing of U. S. marines in summer 1958 and other events, see article on the Middle East in *World Politics* section.)

GOVERNMENT. The modern Lebanese republic is governed by a President elected by Parliament, for a six-year term, and a Cabinet of Ministers appointed by the President, but responsible to Parliament, which has sixty-six members.

ECONOMIC CONDITIONS. Lebanon produces tobacco, olives, grapes and other

fruits, wheat, and silk. Manufacturing is confined mainly to local consumers' goods. The silk industry is important in Beirut and Tripoli. Tobacco manufacturing is a government monopoly. An oil refinery was opened at Tripoli in 1950 and its facilities are being currently expanded.

Leading customers in 1956 were Saudi Arabia (13%), Syria (12%), and France (8%); leading suppliers, Syria (21%), Britain (13%) and the United States (12%). The leading exports were wool, fruits, vegetables, barley, and cotton.

One of the oil pipelines from the Kirkuk field in Iraq terminates at Tripoli; the trans-Arabian pipeline from Saudi Arabia ends at Sidon.

Liberia (Republic)

Area: c. 43,000 square miles.
Population (est. 1955): 1,250,000 (native Negro, 99%; American Negro, .8%; white, .1%; others, .1%).

Density per square mile: c. 29.1.
President: William V. S. Tubman.
Principal city (census 1956): Monrovia, 41,829 (capital and chief port).

Monetary unit: U. S. dollar.
Languages: English (official), native tongues.

Religion: Protestant Christian (official); Moslem, Catholic, Pagan.

HISTORY AND GOVERNMENT (see *World Politics* section).

The government is modeled after that of the United States. The President and Vice President are popularly elected for eight years. The 31-member House of Representatives is elected for four years and the ten-member Senate for six years. Suffrage is extended only to landowners over 21 who are of Negro blood, but a 1946 constitutional amendment provided for the seating in the House of an aborigine from each province in the hinterland. Liberia's army of about 4,000 men is organized on a militia basis.

SOCIAL AND ECONOMIC CONDITIONS.

The English-speaking descendants of U. S. Negroes, known as Americo-Liberians, are the intellectual and ruling class. The aborigines, virtually all uncivilized, are divided into some twenty-eight tribes speaking different dialects. Some are Moslems or pagans. The Christian population includes Anglicans, Methodists, Catholics, Baptists, and Presbyterians.

Chief exports in 1956 were rubber (68%), iron ore (18%), and diamonds (5%). Leading customers were the United States (80%), the Netherlands (5%), and western Germany (5%); leading suppliers, the United States (62%), Britain (11%), and western Germany (10%).

Libya (Kingdom)

Area: 679,358 square miles.

Population (census 1954): 1,091,830 (Berber, with Arab admixture, 93%; Italian, 5%; Jewish, 2%).

Density per square mile: 1.6.

Ruler: King Idris I.

Prime Minister: Abdul Majid Kobar.

Principal cities (census 1954):* Tripoli, 130,238 (joint capital); Bengasi, 70,533 (joint capital).

Monetary unit: Libyan pound (£L).

Languages: Arabic, Italian.

Religions: Moslem (93%), Christian (5%), Jewish (2%).

HISTORY AND GOVERNMENT. Libya, stretching along the northern coast of Africa between Tunisia and Egypt, was a part of the Turkish dominions from the sixteenth century until 1911. Following the outbreak of hostilities between Italy and Turkey in the latter year, Italian troops occupied Tripoli; Italian sovereignty was recognized the next year by the Treaty of Ouchy.

Libya was the scene of much desert fighting during World War II. After the fall of Tripoli on Jan. 23, 1943, it came under Allied administration. The U. N. General Assembly voted on Nov. 21, 1949, that Libya should become independent by 1952.

Following the adoption by the constituent assembly of a Constitution, the independence of the country was proclaimed by King Idris I on Dec. 24, 1951.

Under the Constitution, Libya is a hereditary monarchy with a federal form of government. Tripolitania, Cyrenaica, and the Fezzan are the constituent provinces. It has a bicameral Parliament consisting of a Senate of twenty-four members, half named by the King and half by the three provincial legislatures, and a House of Representatives elected on a proportional representation basis according to population. The Cabinet, headed by the Prime Minister, is responsible to the federal Parliament.

The ruler, King Idris I, hereditary head of the powerful Senussi sect in Cyrenaica, was born in 1890.

SOCIAL AND ECONOMIC CONDITIONS.

Tripolitania, with one-sixth the area, has 68% of the population; Cyrenaica has 27% and the Fezzan 5%. About 75% of the population is rural and about 45% of that is nomadic or seminomadic.

Animal husbandry is the basic economic activity, and there are considerable numbers of cattle, sheep, camels, and goats. Agriculture is possible only in the Mediterranean coastal region, where dates, olives, citrus fruit, wheat, and barley are grown, and in oases in the Fezzan and elsewhere; here the principal product is dates. Sponge and tunny fisheries are carried on off the coast.

Chief exports (1956) were peanuts (22%), scrap iron (13%), and esparto (11%). Italy was the leading customer (38%) and supplier (30%).

Liechtenstein (Principality)

Area: 61 square miles.
Population (census 1955): 14,861 (mostly German).

Density per square mile: 243.6.
Ruler: Prince Franz Joseph II.
Chief of Government: Alexander Frick.
Principal city (census 1955): Vaduz, 3,031 (capital).

Monetary unit: Swiss franc.
Language: German.
Religion: Roman Catholic.

Tiny Liechtenstein lies on the east bank of the Rhine, just south of Lake Constance, between Austria and Switzerland. It abolished its army in 1868 and has managed to stay neutral and undamaged in all European wars which have occurred since that date.

Founded in 1719, Liechtenstein became independent in 1866. Franz Joseph II, the reigning Prince, was born in 1906, and succeeded his great uncle, Franz I, in 1938. In 1943 he married Countess Gina Wilczek of Austria.

The Constitution of 1921 provided for a legislature, the *Landtag*, of fifteen members elected by direct, universal suffrage. Liechtenstein adopted Swiss currency in 1921, and has been part of the Swiss Customs Union since 1924. Its foreign trade statistics are included in those of Switzerland, which also administers the country's telegraph and postal service.

Wheat, wine, and fruit are the chief products. There are small manufactures of cotton, leather, and pottery.

Liechtenstein's area includes low valley land and upland peaks—Falkals at 8,401 feet, and Naafkopf, 8,432 feet. The chief mineral product is marble.

Lithuania

Area: 31,200 square miles.
Population (1956): 2,700,000 (1940: Lithuanian, 81% [1950: 55%]; German, 4%; Polish, 3%; Russian, 2%; others, 10%).

Density per square mile: 86.5.
Principal cities (1956): Vilnius (Wilno), 200,000 (capital); Kaunas, 195,000 (river port).

Language: Lithuanian.
Religions: Roman Catholic, 80%; Lutheran, 5.5%; others, 14.5%.

Southernmost of the three Baltic states, Lithuania in the middle ages was a grand duchy joined to Poland through royal marriage. Poles and Lithuanians merged forces to defeat the Teutonic Knights of Ger-

many at Tannenberg in 1410 and extended their power far into Russian territory. In 1795, however, following the third partition of Poland, Lithuania fell into Russian hands and did not gain its independence until 1918, toward the end of World War I.

The republic was occupied by the U.S.S.R. in 1939 and annexed outright the following year. From 1940 to 1944 it was occupied by German troops and then was retaken by the Soviet Union. Western countries, including the United States have not recognized the Russian annexation.

Luxemburg (Grand Duchy)

Area: 999 square miles.
Population (est. Dec. 31, 1956): 312,500 (Luxemburgian, French, German).

Density per square mile: 312.9.
Ruler: Grand Duchess Charlotte.
Premier: Joseph Bech.
Principal city (est. 1953): Luxembourg, 66,382 (capital, iron and steel).

Monetary unit: Luxembourg franc.
Languages: Luxemburgian, French, German.

Religion: Mainly Roman Catholic.

HISTORY. Sigefrol, Count of Ardennes, an offspring of Charlemagne, was Luxemburg's first sovereign ruler. In 1060 the country came under the rule of the House of Luxemburg. From the 15th to the 18th centuries, Spain and Austria held it in turn. The Congress of Vienna in 1815 made it a Grand Duchy and gave it to William I, King of the Netherlands. In 1839 the Treaty of London ceded the western part of Luxemburg to Belgium.

ECONOMIC CONDITIONS. Although the soil is not very fertile, agriculture is prosperous. Principal crops are potatoes, oats, wheat, rye, and grapes.

The mining and metallurgical industries, based on iron ore found in the south, are the most important.

By a customs union between Belgium and Luxemburg which came into force on May 1, 1922, to last for 50 years, customs frontiers between the two countries were abolished. On Jan. 1, 1948, an economic union with Belgium and the Netherlands (Benelux) came into existence. Luxemburg's foreign trade figures are included in those of Belgium and no separate statistics are available; exports consist chiefly of iron and steel products.

Luxemburg's prosperity depends largely on its large iron ore deposits.

Maldiv Islands (Sultanate)

Area: c. 115 square miles.
Population (est. 1955): 89,000.
Density per square mile: c. 773.9.
Sultan: Amir Mohammed Farid Didi.

Prime Minister: Ibrahim Ali Didi.
Principal city (est.): Malé, 8,000 (capital).
Monetary unit: Rupee.
Languages: Sinhalese (dialect), Arabic.
Religion: Moslem.

The Maldives Islands, about 400 miles to the southwest of Ceylon in the Indian Ocean, were first visited by the Portuguese in the sixteenth century. They came under British protection in 1887 and were a dependency of the colony of Ceylon until 1948, when relations with Britain were formalized in a treaty which left domestic affairs in the hands of the islanders. Re-activation of a British airfield was announced Jan. 3, 1957.

For centuries a sultanate, the islands adopted a republican form of government in 1952, but the sultanate was restored in Feb., 1954. There is a bicameral legislature which is popularly elected.

The people are great traders and fishermen. Besides fishing, coir making is the chief local industry. Exports include coir, coconuts, copra, millet, and fruit.

The islands consist of 12 coral atolls with about 2,000 small islands, of which about 300 are inhabited.

Mexico (Republic)

(Estados Unidos Mexicanos)

Area: 760,373 square miles.
Population (est. 1957): 31,426,000 (mestizo, 55%; Indian, 29%; white, 15%; others, 1%).

Density per square mile: 40.2.
President: Adolfo López Mateos.
Principal cities (census 1950): Mexico City, 2,234,795 (capital); Guadalajara, 377,016 (manufacturing); Monterrey, 333,422 (metallic industries); Puebla, 223,667 (cotton textiles); Mérida, 142,858 (sisal); San Luis Potosí, 125,662 (mineral smelting).

Monetary unit: Peso.
Languages (1940): Spanish, 94%; Indian, 6%.
Religion: Predominantly Roman Cath.

HISTORY. Mexico's early history is shrouded in mystery. At least two civilized races—the Mayas and later the Toltecs—preceded the wealthy Aztec empire conquered in 1519–21 by the Spanish under Hernando Cortez. Spain ruled for the next 300 years until 1810 (the date was Sept. 16 and is now celebrated as Independence Day), when the Mexicans first revolted. They continued the struggle and finally won independence in 1821.

Turbulent years followed. From 1821 to 1877, there were two Emperors, several dictators and enough Presidents and provisional executives to make a new government on the average of every nine months. Mexico lost Texas (1836), and after defeat in the war with the United States (1846–48) it lost the area comprising the present states of California, Nevada, and Utah,

most of Arizona and New Mexico, and parts of Wyoming and Colorado.

In 1855 the Indian patriot Benito Juárez began a series of liberal reforms, including the disestablishment of the Catholic Church, which had acquired vast property. A subsequent civil war was interrupted by the French invasion of Mexico (1861), the crowning of Maximilian of Austria as Emperor (1864), and then his overthrow and execution by forces under Juárez, who again became President in 1867.

The years after the fall of the dictator Porfirio Díaz (1877–80 and 1884–1911) were marked by bloody political-military strife and trouble with the United States culminating in the punitive expedition into northern Mexico (1916–17) in unsuccessful pursuit of the bandit-politician Pancho Villa.

GOVERNMENT. The President, popularly elected for six years and ineligible to succeed himself, governs with a Cabinet of ministers. The Federal Congress has two houses—the 162-member Chamber of Deputies, elected for three years (one for each 150,000 population) and the 60-member Senate, elected for six years. All married male citizens at least 18, and all single male citizens at least 21 are eligible to vote. Women received the right to vote in 1953.

Each of the twenty-nine states has considerable autonomy, with a popularly-elected Governor, legislature and local judiciary. The President appoints the Governors of the two Federal territories, and the governing body of the Federal District.

ECONOMIC CONDITIONS. *Agriculture.* Primitive agricultural methods are steadily giving way to modern practices. More than 17,000,000 acres are under cultivation. The Yucatán peninsula, at the southern end of the Gulf of Mexico, raises more than half of the world supply of sisal hemp.

Stockraising is important on non-arable land. Mexico's inventory of livestock in 1957 included an estimated 16,700,000 cattle, 5,350,000 sheep, and 8,220,000 hogs.

Industry. The leading industrial products are cotton cloth and thread, beer, sugar, iron, and steel.

Chief exports in 1956 were cotton (28%), coffee (12%), copper (8%), lead (7%), and zinc (5%). The U. S. took 73% of the exports and supplied 78% of the imports. Other leading customers were Japan, Britain, and western Germany. Leading imports included machinery, vehicles and iron and steel products.

NATURAL FEATURES AND RESOURCES. Mexico is a great, high plateau, open to the north, with mountain chains on east and west and with ocean-front lowlands lying outside of them. It has two big spears—

the peninsula of Lower California, which is mountainous, and the Yucatán peninsula, which is mostly a low plain. The eastern mountains are marked by high volcanoes.

Minerals. Mexico is one of the richest mineral countries in the world. It outranks all other countries in silver production. Other minerals are gold, lead, copper, zinc, antimony, tin, coal, and iron ore.

Most of the Mexican mining properties are foreign-owned, and the industry is declining in relative importance. The oilfields, lying along the east coast, were seized by the government in 1938, but later the foreign owners were indemnified.

Forests. Mexico's forests are of considerable importance; they include pine, oak, fir, mahogany, red and white cedar, and primavera. Resins, turpentine, and vegetable wax are also produced. Yucatán produces nearly all of the world's chicle, the juice of the sapodilla tree, used as the base of chewing gum.

Monaco (Principality)

Area: .59 square mile (375 acres).

Population (census 1956): 20,422.

Density per square mile: 34,613.6.

Ruler: Prince Rainier III.

Principal and only cities (census 1951): Monaco, 1,860; La Condamine, 9,858; Monte Carlo, 8,484.

Monetary unit: French franc.

Language: French.

Religion: Roman Catholic.

A tiny, hilly wedge driven into the French Mediterranean coast nine miles east of Nice, Monaco is a little land of pleasure with a tourist business that runs as high as 1,500,000 visitors a year. Monaco had popular gaming tables as early as 1856. Five years later, a 50-year concession to operate the games was granted to François Blanc, of Bad Homburg. This concession passed into the hands of a private company in 1898.

The Phoenicians, and after them the Greeks, had a temple on the Monacan headland honoring Hercules. From *Monoi-kos*, the Greek surname for this mythological strong man, the principality took its name. After being independent for 800 years, Monaco was annexed to France in 1793 by the French Revolutionists, and was placed under Sardinia's protection in 1815. In 1861, it went under French guardianship but continued to be an independent country.

Prince Albert of Monaco gave the principality a Constitution in 1911, creating a National Council of eighteen members popularly elected for four years. The government is under a ministry, acting on the Prince's authority. The ruler, Prince Rainier III, born May 31, 1923, succeeded his grandfather, Louis II, on the latter's death, May 9, 1949. Rainier was married April 19,

1956, to Grace Kelly, U. S. actress. A daughter, Princess Caroline Louise Marguerite, was born Jan. 23, 1957, and a son, Prince Albert Louis Pierre on March 14, 1958.

Mongolian People's Republic (Outer Mongolia) (Republic)

Area: 614,350 square miles.

Population (est. 1956): 1,000,000 (Mongol, except for about 100,000 Russians and 50,000 Chinese).

Density per square mile: 1.6.

Chairman of Presidium: Zh. Sambu.

Prime Minister: Y. Tse Den-bal.

Principal city (est. 1954): Ulan Bator, 100,000 (capital).

Monetary unit: Tugherik.

Languages: Mongolian, Russian.

Religion: Lama-Buddhist.

HISTORY AND GOVERNMENT. The Mongolian People's Republic, known also as Outer Mongolia, is a Russian satellite that measures more than twice the area of Texas. It contains the original homeland of the historic Mongols, whose power reached its zenith during the thirteenth century under Kublai Khan. The area accepted Manchu rule in 1689, but after the Chinese Revolution of 1911 and the fall of the Manchus in 1912, the northern Mongol princes expelled the Chinese officials and declared independence under the Khutukhtu or "Living Buddha." In 1921, Soviet troops entered the country and facilitated the establishment of a republic by Mongolian revolutionaries in 1924 after the death of the last Living Buddha. China, meanwhile, continued to claim Outer Mongolia but was unable to back the claim with any strength. Under the Chinese-Russian Treaty of 1945, China agreed to give up Outer Mongolia, which after a rigged plebiscite, became nominally independent.

The government of the republic is strikingly similar to the Soviet system. The Great Hural or Huruldan (parliament) is elected by universal suffrage, meets at least once in three years and picks thirty members to act as an executive committee—the Little Hural—which in turn selects a presidium of seven members as an interim body. A Cabinet of ten ministers appointed by the Little Hural governs the country.

ECONOMIC CONDITIONS. The country is largely pastoral. There are few areas suitable for crop growing, but some millet, rye, and wheat are produced. Most of the people are essentially nomadic or semi-nomadic; flocks and herds remain the chief source of wealth.

There are a few industrial enterprises. All land, natural resources, factories, mine, hay-making stations and public utilities are nationalized.

Foreign trade, a state monopoly, is carried on mainly with the Soviet Union, but also with Communist China. The leading exports are livestock, wool, hides, animal hair, meats, and furs.

NATURAL FEATURES AND RESOURCES. The productive regions of Outer Mongolia—a tableland ranging from 3,000 to 5,000 feet in elevation—are in the north, which is well drained by numerous rivers, including the Kerulen, Tola, Orkhon, and Selenga.

Reserves of 500,000,000 tons of coal are said to exist in the Nalaikha field near Ulan Bator. Some gold is mined. Deposits of antimony, copper, iron ore, lead, graphite, mercury, sulfur, and silver exist.

Morocco (Kingdom)

(Maroc)

Area: 174,553 square miles.

Population (est. 1956): 8,500,000.

Density per square mile: 55.6.

Ruler: King Mohammed V.

Prime Minister: Ahmed Balafrej.

Principal cities (census 1951-52): Casablanca, 682,388 (chief seaport); Marrakesh, 215,312 (trading center); Fez, 179,372 (commercial center); Rabat, 156,209 (French administrative center); Tetuán (census 1950), 80,732 (Spanish administrative center).

Monetary units: French franc, Spanish peseta.

Languages: Arabic, French, Spanish.

Religions: Chiefly Moslem.

HISTORY. Morocco, about the size of California, is just south of Spain across the Strait of Gibraltar and looks out on the Atlantic from the northwest shoulder of Africa. It was once the home of the Berbers, who helped the Arabs invade Spain in A.D. 711 and then revolted against them and gradually won control of large areas of Spain for a time after 739.

The country was ruled successively by various native dynasties and maintained regular commercial relations with Europe, even during the 17th and 18th centuries when it was the headquarters of the famous Sallí pirates. In the 19th century, clashes with the French and Spanish became frequent. Finally, in 1904, France and Spain divided Morocco into zones of French and Spanish influence, and these were established as formal protectorates in 1912.

Meanwhile, Morocco had become the object of big-power rivalry, which almost led to a European war in 1905 when Germany attempted to gain a foothold in the rich mineral country. By terms of the Algeiras Conference (1906), Morocco was internationalized economically and France's privileges were limited. War again seemed imminent in 1911, when Germany dispatched a warship to Agadir in an evident attempt to intimidate France. Again the dispute

was settled, however, and this time Germany recognized France's right to establish a protectorate over Morocco.

The Tangier Statute, concluded by Britain, France and Spain in 1923, created an international zone at the port of Tangier, permanently neutralized and demilitarized. In World War II, Spain occupied the zone, ostensibly to insure order, but was forced to withdraw in 1945, and the international rule was re-established.

Sultan Mohammed V was deposed by the French in Aug. 1953 and replaced by his uncle, but nationalist agitation forced his return in Nov. 1955.

France recognized the independence and sovereignty of Morocco on March 2, 1956. Spain followed on April 7, 1956. The Tangier international zone was abolished by a declaration signed Oct. 29, 1956. Morocco was admitted to the U. N. Nov. 12, 1956.

GOVERNMENT. Morocco is an absolute monarchy under the King. He is advised by a Cabinet of Moroccan ministers headed by the Prime Minister.

(For Morocco's relationship with France see *World Politics* section).

ECONOMIC CONDITIONS. The natives are Berbers, roughly divided by customs and way of life into three groups—the Rif group along the coast, the central or Berber group in the mid-Atlas Mountains, and the southern or Cleuh in the high Atlas and the Sus. There is a large Jewish population. Most of the Europeans live in the cities.

Morocco is essentially agricultural. Corn, beans, peas, hemp, wheat, barley, sorghum, citrus fruits, olives, and dates also are raised. In 1955 there were 15,400,000 sheep and 2,466,000 cattle.

In the former Spanish zone, agriculture is largely undeveloped, but it has potential importance. Barley, wheat, maize and sorghum crops are the most important.

Manufacturing industries introduced by Europeans, mostly small, produce chemicals, flour, leather, stone, beverages and textiles. Native industries include carpet weaving and making Turkish slippers.

In 1956 chief exports were phosphate (20%), barley (7%), olive oil (7%), and citrus fruit (6%). France took 53% of the exports and supplied 48% of the imports, which included sugar, vehicles, petroleum products, cotton cloth, and tea. A large proportion of the trade was carried on with Spain. Major exports are iron ore, fish and, grain; imports include flour, sugar, tea, wine and, textiles.

Casablanca, which handles 80 per cent of the French zone trade, has perhaps the world's largest artificial port.

Exploitation of French Morocco's almost

inexhaustible deposits of phosphate is a state monopoly. Other major minerals are coal, cobalt, iron ore, manganese ore, molybdenum, tin, zinc, and lead. Iron ore is the chief mineral of the Spanish zone; others are antimony and manganese.

NATURAL FEATURES. On the Atlantic coast there is a fertile plain; the Mediterranean coast is mountainous, making most of the Spanish zone a rugged area. The Atlas Mountains, running northeastward from the south to the Algerian frontier, average 11,000 feet in elevation.

Nepal (Kingdom)

Area: 54,510 square miles.

Population (census 1954): 8,431,537 (Gurkha [predominant], Magar, Gurung, Bhotia [Tibetan], Newar).

Density per square mile: 154.7.

Ruler: Mahendra Bir Bikram.

Prime Minister: Kunwar Inderjit Singh.

Principal city and capital: Katmandu (estimated population, 108,800).

Monetary unit: Nepalese rupee.

Languages: Parbatia, Gubhajius, Tibetan.

Religions: Hinduist, Buddhist.

HISTORY AND GOVERNMENT. A landlocked country about the size of Iowa, lying between the Republic of India and Tibet, Nepal contains Mt. Everest, 29,028 feet high, the tallest measured mountain in the world.

The Gurkhas invaded Nepal from India in 1768 and conquered it. A commercial treaty was signed with Britain in 1792, and in 1816, after more than a year's hostilities, the Nepalese agreed to allow British residents to live in Katmandu, the capital. In 1923 Britain recognized the absolute independence of Nepal. King Tribhubana was deposed on Nov. 7, 1950, but was returned to the throne with Indian assistance on Feb. 15, 1951. On his death Mar. 13, 1955, his son Mahendra became ruler. Nepal was admitted to the U. N. in 1955.

ECONOMIC CONDITIONS. Cultivated and irrigated where possible, the main valley of Nepal grows rice, wheat, pulse, fruits, vegetables, spices, sugar cane, and potatoes. A few sheep and cattle are grazed. Manufacturing is limited to native handicraft, but jute and textile mills are being established. Trade with India and Pakistan passes through frontier stations; there are two mountain trade routes to Tibet.

Main exports include hides, skins, opium, gums, resins, dyes, jute, wheat, pulse, rice, spices, and timber. Two railroads enter Nepal for short distances—one from Raxaul, India, to Amlekhganj, the other from Jayauagar to Bijulpura.

NATURAL FEATURES AND RESOURCES. Along its southern border, Nepal has a strip of level land which is partly forested, partly cultivated. North of that is the slope of the Himalayan Range, including Mt. Everest (29,028 ft.), which was climbed for the first time in 1953, and many peaks higher than 20,000 feet. Mineral resources, nearly all unexploited, include lignite, copper, zinc, lead, sulfur, marble, and iron. Southern Nepal has valuable forests which yield gum, timber, resin, and dye. Hemp plants grow wild.

Netherlands (Kingdom)

(Koninkrijk der Nederlanden)

Area: 12,482 square miles.*

Population (est. 1957): 11,009,000 (practically all Dutch).

Density per square mile: 877.8.

Sovereign: Queen Juliana.

Prime Minister: Willem Drees.

Principal cities (est. 1957): Amsterdam, 871,188 (capital, financial center); Rotterdam, 722,718 (chief port); The Hague, 606,728 (seat of government); Utrecht, 247,816 (railway center); Haarlem, 167,264 (tulip center); Eindhoven, 157,621 (industrial center).

Monetary unit: Guilder.

Language: Dutch.

Religions (census 1947): Roman Catholic, 38.5%; Dutch Reformed, 31.0%; other Protestant, 13.3%; Jewish, 0.2%; others and no creed, 17.0%.

* Excluding waterways and bodies of water larger than 185 acres.

HISTORY. Julius Caesar found the low-lying Netherlands inhabited by Germanic tribes, the Nervii, Frisii and Batavi. The Batavi on the Roman frontier did not submit to Rome's rule until 13 B.C., and then only as allies. A part of Charlemagne's empire in the 8th and 9th centuries A.D., the area later passed into the hands of Burgundy and the Austrian Hapsburgs, and finally in the 16th century came under Spanish rule. When Philip II of Spain suppressed political liberties and the growing Protestant movement in the Netherlands, a revolt led by William of Orange broke out in 1568. Under the Union of Utrecht in 1579, the seven northern provinces became the Republic of the United Netherlands.

The Dutch East India Company was established in 1602, and by the end of the 17th century Holland was one of the great sea and colonial powers of Europe.

(For recent history, see *World Politics* section).

RULER. Queen Juliana, who was born April 30, 1909, was married on Jan. 7, 1937, to Prince Bernhard of Lippe-Biesterfeld (born in 1911). They have four daughters: Beatrix, heiress apparent (born Jan. 31, 1938); Irene (born 1939); Margriet Francisca

1943); and Maria Christina (born

ECONOMIC CONDITIONS. *Agriculture*—The farms are characteristically small, with only a few larger than 250 acres. Dairying is more important than crop growing; production of cheese milk, butter and eggs is under state control.

In 1956 there were 2,962,000 cattle, 2,332,000 hogs, 433,000 sheep, and 210,000 horses. Large quantities of vegetables and fruits are raised for export.

Almost as important as the dairy industry is the raising of tulip, hyacinth, and other flower bulbs in the area around Haarlem.

Industry. The Netherlands is a highly industrialized nation, utilizing both overseas raw materials and domestic agricultural products. Leading industries are textiles, clothing, shipbuilding, shoes, food, and building materials.

The Netherlands ranks high among the world's shipbuilding nations; also pig iron and steel are important. Amsterdam is one of the world's diamond-cutting centers.

Trade. Principal customers in 1956 were western Germany (18%), Belgium (14%), Britain (12%), the U. S. (6%), and France (5%). Leading suppliers were Belgium (19%), western Germany (18%), the U. S. (14%), Britain (8%), and France (3%). The chief exports were petroleum and coal-tar products (10%), dairy products and eggs (10%), electrical machinery and apparatus (6%), and fabrics and clothing (6%). Leading imports were machinery, iron and steel and manufactures, petroleum and products, cereals and flour and wood and manufactures.

Communications. The Dutch merchant marine is the seventh largest fleet in the world. An extensive network of rivers expanded by many canals has led to extensive development of inland shipping.

NATURAL FEATURES AND RESOURCES.

Part of the great plain of north and west Europe, the Netherlands has maximum dimensions of 190 by 160 miles and is low and flat except in Limburg in the south-east, where some hills rise to 300 feet. About half the country's area is below sea level, making the famous Dutch dikes a requisite to the use of much land. Reclamation of land from the sea through dike-building has continued through recent times.

All drainage reaches the North Sea, and the principal rivers—Rhine, Maas (Meuse), and Schelde—have their sources outside the country. The Rhine is the most heavily used waterway in Europe.

Netherlands minerals are few. The only

important ones are coal, crude petroleum, and salt. There also are peat swamps and about 600,000 acres of forest.

NETHERLANDS OVERSEAS TERRITORIES

NETHERLANDS ANTILLES—Status: Part of the United Kingdom of the Netherlands.

Area: 366 square miles.
Population (est. Dec. 31, 1955): 187,473.
Capital: Willemstad (est. 1953: 44,062).
Governor: F. E. J. van der Valk (acting).
Prime Minister: Ephraim Jonckheer.
Foreign trade (1956), exports, 1,585,000,000 florins; imports, 1,656,000,000 florins.
Chief export: petroleum products (more than 95 per cent).

Agricultural products: aloes, beans, corn.
Manufactures: refined petroleum, straw hats.

Mineral products: lime phosphate, salt.

This comprises two groups of Caribbean islands 500 miles apart; one, about 40 miles off the Venezuelan coast, consists of Curaçao (173 sq. mi.), Bonaire (95 sq. mi.), and Aruba (69 sq. mi.); the other, lying to the northeast, consists of 3 small islands with a total area of 29 square miles. The Dutch acquired the island of Curaçao from Spain in 1634.

The Governor is assisted by a local Legislature and Cabinet. The area has complete autonomy in domestic affairs.

The economy of the Netherlands Antilles is based almost entirely on the refining at Curaçao and Aruba of crude petroleum, which comes chiefly from the adjacent Maracaibo fields in Venezuela.

SURINAM (Dutch Guiana)—Status: Part of the United Kingdom of the Netherlands.

Area: 55,143 square miles.
Population (est. 1956): 240,000.*
Capital: Paramaribo (pop. 1956: 95,000).
Governor: J. van Tilburg.
Prime Minister: J. H. E. Ferrier.
Foreign trade (1955): exports, 49,684,000 florins (70% to the U. S.); imports, 51,610,000 florins (33% from the U. S.). Chief export: bauxite (over 80%).

Agricultural products: rice (1955: 64,526 metric tons), sugar, coffee.

Minerals (1955): bauxite, 3,060,000 metric tons; gold, 7,235 troy oz.

Forest products: balata (1955: 183 metric tons), timber.

* Including aborigines, numbering about 26,000.

Surinam lies in northeastern South America between British and French Guiana. It was received by the Dutch from England at the Peace of Breda (1667) in exchange for New York and at that time included British Guiana, which was seized by England in 1803 and formally ceded to her after the Napoleonic Wars.

The Governor of Surinam (appointed by the Crown) is assisted by a local Legislature and Cabinet, which have sole responsibility in domestic affairs.

Mining is the most important activity, and only about 65,000 acres are devoted to agriculture. The largest bauxite mines are owned by Aluminum Company of America subsidiaries.

From its settled coastal plain, Surinam runs back to a virtually unexplored mountain and jungle area.

NETHERLANDS NEW GUINEA—Status: Part of the United Kingdom of the Netherlands.

Area: 160,618 square miles.

Population (est. 1955): 700,000.

Capital: Hollandia (pop. 1954: 11,322).

Governor: Jan van Baal.

Agricultural products: sago, coconuts, sugar cane, sweet potatoes.

Minerals: petroleum (1956: 2,618,430 barrels), nickel, chrome.

The western part of New Guinea, second largest island of the world, with smaller adjacent islands, forms part of the Kingdom of the Netherlands. The area remained Dutch upon the transfer of sovereignty in Indonesia in Dec., 1949, with the understanding that its status would be determined within one year by negotiation between the Netherlands and Indonesia. Subsequent negotiations did not lead to any agreement.

Dutch influence dates back to the activities of the Dutch East India Company in the 17th century.

The Papuans are the dominant stock; there are also Melanesian and Negrito elements. Commerce and industry are almost unknown, except for oil production, and life is primitive, with head-hunting and cannibalism not unknown even today.

Nicaragua (Republic)

(República de Nicaragua)

Area: 57,143 square miles.*

Population (est. 1957): 1,331,000 (1943: mestizo, 69%; white, 17%; Negro, 9%; Indian, 5%).

Density per square mile (land only): 22.4.

President: Luis Somoza Debayle.

Principal cities (census 1950†): Managua, 109,352 (capital); León, 30,544 (trading center); Granada, 21,035 (trading center); Chinandega, 13,146 (sugar).

Monetary unit: Córdoba.

Language: Spanish.

Religion: Roman Catholic.

* Including inland water area of 3,475 square miles.

† Urban population of municipalities.

HISTORY. Nicaragua, which established independence in 1838, was first visited by the Spaniards in 1522. The chief of the country's leading Indian tribe at that time was called Nicaragua, from whom the nation derived its name. A United States naval force intervened in 1909 after two American citizens had been executed, and a few U. S. Marines were kept in the coun-

try from 1912 to 1925. The Bryan-Chamorro Treaty of 1916 gave the United States option on a canal route through Nicaragua, and naval bases. Disorder after 1924 elections brought in U. S. Marines again, but they were withdrawn after the U. S.-supervised elections of 1928.

GOVERNMENT. The Constitution of 1950 provides for a President popularly elected for six years, and a two-house Congress—a 42-member Chamber of Deputies and a 16-member Senate—both elected for six years. Former Presidents of the republic automatically become Senators.

ECONOMIC CONDITIONS. More than half of Nicaragua is jungle-covered; agriculture, the leading industry, utilizes only 10 per cent of the total land.

Chief exports in 1956 were cotton (36%), coffee (36%), and gold (12%). Leading customers were the U. S. (39%), Germany (23%), and the Netherlands (11%); leading suppliers were the U. S. (63%), Germany (7%), and the Netherlands Antilles (7%).

NATURAL FEATURES AND RESOURCES. Largest but most sparsely populated of the Central American nations, Nicaragua is mountainous in the west, with fertile valleys. A plateau slopes eastward toward the Caribbean.

Two big lakes—Nicaragua, about 100 miles long, and Managua, about 38 miles long—are connected by the Tipitapa River. The Pacific coast is bald and rocky; the Caribbean coast, swampy and indented, is aptly called the "Mosquito Coast."

Gold and silver are the most important minerals. One-third wooded, Nicaragua produces mahogany, rosewood, cedar, rubber, and ipecac root.

Norway (Kingdom)

(Norge)

Area: 125,064 square miles.

Population (est. 1957): 3,496,000 (Norwegian, 98.7%; Swedish, .8%; others, .5%).

Density per square mile: 27.7.

Sovereign: King Olaf V.

Prime Minister: Einar Gerhardsen.

Principal cities (est. 1956): Oslo, 455,000 (capital, chief port); (census 1950) Bergen, 112,845 (seaport, shipbuilding); Trondheim, 56,669 (seaport, timber, fish); Stavanger, 50,647 (seaport, fisheries).

Monetary unit: Krone.

Language: Norwegian.

Religions: Evangelical Lutheran (state), 96.8%; others, 3.2%.

HISTORY AND GOVERNMENT: (See *World Politics* section).

RULER. Olaf V, born July 2, 1903, only son of Haakon VII and Princess Maud (1869-1938), third daughter of Edward VII of

England, succeeded to the throne on the death of his father Sept. 20, 1957. He married Princess Märtha of Sweden (1901-1954) on March 21, 1929. Their children are Princess Ragnhild Alexandria (born 1930), Princess Astrid (born 1932), and Prince Harald (born 1937).

ECONOMIC CONDITIONS. Land suitable for cultivation, estimated at less than 5 per cent of the total area, consists of strips in the deep narrow valleys and around floods and lakes. Foodstuff production is insufficient to meet domestic needs. Leading crops, with 1956 production in metric tons, are wheat, 56,000; barley, 288,000; oats, 167,000; potatoes, 1,406,000; hay and fodder. The country is more adapted to stock raising than to crop growing; in 1956, there were 1,111,812 cattle, 1,825,908 sheep, 506,597 hogs, and 110,378 goats.

Raw materials produced in Norway form the basis of most of the manufactures. Leading industries are food, machinery, metals, wood, paper, and electro-chemicals.

In 1956 the leading customers were Britain (19%), western Germany (12%), Sweden (10%), and the U. S. (9%). Leading suppliers were Britain (19%), western Germany (18%), Sweden (14%), and the U. S. (10%). Chief exports were base metals (25%), fish and fish preparations (14%), pulp and waste paper (10%), and paper and manufactures (9%).

The normally adverse trade balance is offset to some extent by invisible exports, particularly the earnings of the large merchant marine.

NATURAL FEATURES AND RESOURCES. Nearly 70 per cent of Norway is uninhabitable and covered by mountains, glaciers, moors, and rivers. The hundreds of deep floods that cut into Norway's coast line give it an over-all ocean front of more than 12,000 miles. Islands off the coast, numbering almost 150,000, form a breakwater and make a safe coastal shipping channel.

Mineral resources are extensive, but coal deposits are entirely lacking except in Spitsbergen. Important minerals are iron ore, aluminum, pyrite ore, zinc, copper ore, molybdenum ore, tungsten, antimony ore, tin, and silver.

Cheap electric power, produced mainly by hydroelectric plants, makes possible the extraction of nitrogen from the air and manufacture of potassium nitrate, an important fertilizer.

The forests, largely in the south and southeast, are one of the chief natural resources. About 25% of the total area is covered with forests, of which 70% is pine.

Fishing is one of the principal industries, engaging as many as 100,000 persons annually.

Outer Mongolia. See Mongolian People's Republic

Palestine. See Israel; Jordan

Panamá (Republic)

(República de Panamá)

Area: 28,753 square miles.

Population (est. 1957): 960,000 (1940: mestizo, 65.34%; Negro, 13.31%; white, 11.07%; Indian, 9.53%; others, .75%).

Density per square mile: 32.5.

President: Ernesto de la Guardia, Jr.

Principal cities (census 1950): Panamá City, 127,874 (capital and chief port); Colón, 52,204 (chief Caribbean port); Ciudad David, 14,847 (bananas).

Monetary unit: Balboa.

Language: Spanish (official).

Religion: Roman Catholic, 93%; Protestant, 6%; others, 1%.

HISTORY. Visited by Columbus in 1502 on his fourth voyage and explored by Balboa in 1513, Panamá was the principal transshipment point for Spanish treasure and supplies to and from South and Central America in colonial days. In 1821, when Central America revolted against Spain, Panamá joined Colombia, which already had declared its independence. For the next 82 years, Panamá attempted unsuccessfully to break away from Colombia. After U. S. proposals for canal rights over the narrow isthmus had been rejected by the Colombian Senate, Panamá proclaimed its independence with U. S. backing in 1903.

For canal rights in perpetuity, the United States paid Panamá \$10,000,000, and agreed to pay \$250,000 each year, increased to \$430,000 after devaluation of the U. S. dollar in 1933 and to \$1,930,000 under a revised treaty signed Jan. 25, 1955. In exchange, the United States got the Canal Zone, a ten-mile-wide strip across the isthmus, and a considerable degree of influence in Panamá's affairs.

GOVERNMENT. Under the 1946 Constitution, the Assembly and the President are elected for 4-year terms, with the President ineligible to succeed himself. Panamá has no army or navy, but has a national police corps numbering 2,000.

ECONOMIC CONDITIONS. About five-eighths of the nation is unoccupied. A fourth of the population is in Colón and in Panamá City, the oldest white settlement on the Pacific coast of the Americas. In the cities, the lower classes are Negro and Negroid, descendants of British West Indian laborers on the canal.

Bananas are the main agricultural crop. Chief exports in 1956 were bananas (63%)

and fresh shrimp (26%). The United States was the leading customer (96%) and supplier (60%).

The Panama Canal is the country's biggest economic asset. The main railway is the U. S. Government-owned Panamá Railroad, 47.64 miles long, bridging the isthmus from Panamá City to Colón. In recent years many foreign ships have been registered in Panamá to escape high labor costs and governmental regulations in other nations.

NATURAL FEATURES. Panamá is roughly the size of South Carolina. At the narrowest and lowest point, the canal bisects the country. Outlying islands number about 630 in the Caribbean and 116 in the Pacific.

Paraguay (Republic) (República del Paraguay)

Area: 157,047 square miles.

Population (est. 1957): 1,638,000 (1950: mestizo, 94.9%; white, 3.0%; Indian, 2.1%).

Density per square mile: 10.2.

President: Gen. Alfredo Stroessner.

Principal cities (census 1950): Asunción, 201,340 (capital); Villarrica, 14,680 (sugar, tobacco); Concepción, 14,640 (port, Paraguay river); Encarnación, 13,321 (rail terminus).

Monetary unit: Guaraní.

Languages: Spanish (official), Guaraní.

Religion: Roman Catholic (official).

HISTORY. In 1526 and again in 1529, Sebastian Cabot explored Paraguay when he sailed up the Paraná and Paraguay Rivers. From 1608 until their expulsion from the Spanish dominions in 1767, the Jesuits maintained an extensive establishment in the south and east of Paraguay. In 1811 Paraguay revolted against Spanish rule and became a nominal republic under two Consuls.

ECONOMIC CONDITIONS. The Paraguayans are a homogeneous blend of Spanish, Portuguese, and Italian, with considerable Guaraní Indian blood. There are almost no Negroes; the 35,000 to 50,000 uncivilized Indians live mainly in the Chaco. The country is 90 per cent bilingual, with Guaraní dominating over Spanish (the official language) in rural areas.

A well-favored land, Paraguay is predominantly a cattle country, keeping about 3,500,000 head. The soil is fertile and the climate suitable for subtropical crops. The chief cash crop is cotton.

Chief exports in 1956 were timber (32%), quebracho extract (18%), and cotton (15%). Principal customers and suppliers in 1955 were Argentina, the United States, and Britain.

NATURAL FEATURES AND RESOURCES. Eastern Paraguay, between the Paraná and Paraguay Rivers, is upland country with the thickest population settled on the grassy slope that inclines toward the Paraguay River. The greater part of the Chaco region, to the west, is covered with marshes, lagoons, dense tropical forest, and jungle.

Forest resources are considerable, especially in the Chaco. Quebracho—the "Axe-breaker," a wood so heavy that it will not float—is the principal commercial tree. The wood has many uses, from paving blocks to ox-cart wheels. Quebracho tannic extract is the chief product.

Peru (Republic) (República del Peru)

Area: 482,253 square miles.

Population (est. 1957): 9,923,000 (white and mestizo, 53%; Indian, 46%; Asiatic, Negro and others, 1%).

Density per square mile: 20.0.

President: Manuel Prado y Ugarteche.

Principal cities (est. Dec. 31, 1952): Lima, 926,400 (capital); Callao, 104,500 (port of Lima); Arequipa, 100,900 (commercial center); Cuzco, 58,200 (ancient Incan capital); Trujillo, 49,600 (mining).

Monetary unit: Sol.

Languages: Spanish, Quéchua, Aymará (Indian).

Religion: Roman Catholic.

HISTORY. Peru, once part of the great Incan empire and later the major viceroyalty of Spanish South America, is more than three times the size of California. It was conquered in 1531-33 by Francisco Pizarro. On July 28, 1821, Peru proclaimed its independence, but the Spanish were not finally defeated until the Battle of Ayacucho on Dec. 9, 1824. For a hundred years thereafter the Peruvian course was rough. Revolutions were frequent, and a new war was fought with Spain in 1864-66. The dispute with Chile over Tacna and Arica was not finally settled until 1929.

GOVERNMENT. Under the 1933 Constitution, Peru elects by popular vote every six years a President, two Vice Presidents and a bicameral Congress—a Senate of 52 members and a Chamber of 183 members. The President is ineligible to succeed himself. The Cabinet, headed by the Prime Minister, is presidentially appointed.

ECONOMIC CONDITIONS. Most Peruvians are of mixed Spanish and Indian blood. The Indians come from three main stocks—Quéchua, Aymará (Colla), and Chuncho. There is a relatively large Asiatic population.

Land under cultivation is estimated at only slightly more than 10 per cent of the total area, with more than 80 per cent of the population being dependent upon agri-

culture. About one-eighth of the cultivated area in the irrigated coastal valleys of the central region is devoted to cotton, the most important crop. Stock raising supplies most of the country's meat needs, as well as wool, hides, and skins for export. Llamas, used as beasts of burden, and vicuñas and alpacas, noted for their wool, are native to Peru. Livestock estimates in Dec., 1955, showed 3,439,000 cattle, 16,505,000 sheep, 1,341,000 hogs, and 3,380,000 alpacas and llamas (1952).

Chief exports in 1956 were cotton (28%), sugar (11%), copper (11%), and lead (10%). Chief suppliers were the United States (50%), western Germany (10%), and Britain (9%); chief customers, the United States (37%), Britain (11%), and Chile (9%). Principal Peruvian imports are machinery and motor vehicles, foodstuffs (especially wheat), iron and steel manufactures, electrical goods, and chemicals.

NATURAL FEATURES AND RESOURCES. The Andes Mountains divide Peru into three sharply differentiated zones. To the west is the coastline, much of it arid, extending for 50 to 100 miles inland.

The mountain area, with peaks over 20,000 feet high, lofty plateaus and deep valleys, lies centrally. Beyond the mountains to the east is the heavily forested slope leading to the Amazonian plains.

Peru has vast mineral resources. It ranks fifth in world silver production and mines about 25 per cent of the world's vanadium. But mining is second to agriculture, and nearly all of it is in the hands of foreign capital. Petroleum and copper are the most important, with the latter controlled by the American-owned Cerro de Pasco Corporation, which also accounts for much of the gold and silver output.

An important industry on the outlying islands is the gathering of guano (bird excrement), a valuable fertilizer.

The Philippines (Republic)

Area: 114,830 square miles.

Population (est. 1957): 22,690,000 (Filipino, except [1948] 121,702 Chinese, 6,955 Americans, 1,886 Spanish and 3,319 others).

Density per square mile: 192.1.

President: Carlos P. Garcia.

Principal cities (est. 1952): Manila, 1,158,260 (seat of government, chief port); Cebu, 175,950 (seaport); Quezon City, 159,730 (legal, future capital); Basilan, 141,640 (lumber); Bacolod 126,200 (sugar); Zamboanga, 124,710 (seaport).

Monetary unit: Peso.

Languages: English, Tagalog, Bisayan, Spanish, Ilocano, Bicol.

Religions (census 1948): Roman Catholic, 82.9%; Aglipayan (Independent Philippine Catholic), 7.6%; Moslem, 4.1%; Protestant, 2.3%; others, 3.1%.

HISTORY AND GOVERNMENT. Fernando Magellan, the Portuguese navigator in the service of Spain, discovered the Philippines on March 16, 1521, and twenty-one years later a Spanish exploration party named the group of islands in honor of Prince Philip, later Philip II of Spain. Spain retained possession of the islands for the next 350 years.

The Philippines were ceded to the United States in 1899 by the Treaty of Paris after the Spanish-American War. Meanwhile the Filipinos, led by Emilio Aguinaldo, had declared their independence. They continued guerrilla warfare against U. S. troops until the capture of Aguinaldo in March, 1901. By July, 1902, peace was established except among the Moros.

The first U. S. civilian Governor-General was William Howard Taft (1901-04). The Jones Law (1916) provided for the establishment of a Philippine Legislature composed of an elective Senate and House of Representatives. The Tydings-McDuffie Act (1934) provided for complete Philippine independence in 1946. Under a Constitution approved by the people of the Philippines May 14, 1935, the Commonwealth of the Philippines was inaugurated on Nov. 15 under the presidency of Manuel Quezon y Molina, who was re-elected in 1941.

The Philippines were invaded by Japanese troops on Dec. 8, 1941 (Philippine time), and after the fall of Bataan and Corregidor, President Quezon and his government fled to Washington, D.C. U. S. forces led by Gen. Douglas MacArthur re-invaded the islands in Oct., 1944, and after the liberation of Manila (Feb., 1945), Sergio Osmeña, who had succeeded to the presidency on the death of Quezon (Aug. 1, 1944), re-established the government.

Brig. Gen. Manuel A. Roxas y Acuña, who defeated Osmeña in the elections of April, 1948, became first head of the new independent republic. He died April 15, 1948, and was succeeded by the Vice President, Elpidio Quirino. The latter was re-elected on Nov. 8, 1949, but lost a second bid for re-election to Ramón Magsaysay, who took office on Dec. 30, 1953. On his death in a plane crash March 17, 1957, Magsaysay was succeeded by Vice Pres. Carlos P. Garcia.

ECONOMIC CONDITIONS. *Agriculture and Industry.* Agriculture is the chief industry. Average size of the farms is ten acres, but there are many large plantations. Rice (palay) is the staple native food cereal, but production is insufficient to meet home consumption. The Philippines normally produce about half the world copra supply and a large proportion of the abacá (Manila hemp) supply; they are also a leading source of sugar and sugar products, normally the chief export. Other

crops include sisal, kapok, cotton, corn, tobacco, coffee, rubber cacao, citrus fruits, and bananas. Livestock on March 31, 1956, included 3,590,580 carabao, the farmers' all-purpose animal, 836,080 cattle, 214,140 horses, and 5,765,370 hogs.

There are no large industrial establishments and activity is limited primarily to the processing of agricultural and forest products, such as sugar cane, coconuts, tobacco, abaca, and timber. Preparation of fine embroideries is an important industry.

In 1956, the chief exports were copra and other coconut products (39%), sugar (22%), wood (11%), and abaca (8%). Leading customers were the United States (54%), Japan (18%), and the Netherlands (9%); leading suppliers, the United States (59%), Japan (10%), and Indonesia (4%). Leading imports were machinery and vehicles, cotton and manufactures, iron and steel, and petroleum and products.

NATURAL FEATURES AND RESOURCES. The Philippines are an archipelago of approximately 7,083 islands lying about 500 miles off the southeast coast of Asia. The northernmost island, Y'AmI, is sixty-five miles from Formosa, while the southernmost, Saluag, is thirty miles east of Borneo. Only 466 of the islands have an area of more than one square mile, and only 2,441 have names. The largest islands are Luzon in the north (40,814 sq. mi.), Mindanao in the south (36,537 sq. mi.), Samar (5,124 sq. mi.), Negros (4,903 sq. mi.), and Palawan (4,550 sq. mi.).

Minerals, Forests and Fisheries. The Philippines possess large but relatively undeveloped mineral resources. Most important are gold, silver, iron ore, copper ore, chromite, manganese ore, lead, and zinc.

Poland (People's Republic)

(Polska Rzeczpospolita Ludowa)

Area: 120,442 square miles.

Population (est. 1957): 23,180,000.

Density per square mile: 229.8.

Chairman of State Council: Aleksander Zawadski.

Premier: Josef Cyrankiewicz.

Principal cities (est. 1955): Warsaw, 965,000 (capital); Łódź, 670,000 (industrial center); Wrocław (Breslau), 490,000 (former German industrial center); Kraków, 430,000 (commercial center); Poznań, 370,000 (farm products).

Monetary unit: Złoty.

Language: Polish (more than 90%).

Religions: Roman Catholic, Jewish, Protestant.

HISTORY. Little of certainty is known about Polish history before the eleventh century when King Boleslaus I (the Brave) ruled over Bohemia, Saxony, and Moravia. Mongol invasions in 1241 and 1259 were repelled. Meanwhile, the Teutonic Knights

were erecting in Prussia a state which included part of Poland and barred the latter's access to the Baltic. The Knights were defeated by Wladislaus II at Tannenberg in 1410 and became Polish vassals and Poland regained a Baltic shoreline.

Poland reached the peak of its power between the fourteenth and sixteenth centuries. Poles scored military successes against the Russians and Turks. In 1683, King John Sobieski turned back the Turkish tide near Vienna.

These successes did not halt the process of decline which resulted from the lack of strong central authority, and Prussia, Russia, and Austria were able to carry out a first partition of the country in 1772, a second in 1792 and a third in 1795-96. For more than a century thereafter, there was no Polish state, but the Poles never ceased their efforts to regain their independence. World War I found them fighting unhappily on both sides.

The independence of Poland was formally proclaimed in Nov., 1918, and Marshal Josef Pilsudski was confirmed in office as President. In 1919, Ignace Paderewski, famous pianist and patriot, became the first Premier. Russia attacked Poland in 1920 but the Poles, under Marshal Pilsudski aided by the French, defeated the invaders. On May 12, 1926, Marshal Pilsudski seized complete power in a coup d'état and ruled the country dictatorially until his death on May 12, 1935, when he was succeeded by Marshal Edward Smigly-Rydz.

Despite a 10-year nonaggression pact signed with Germany in 1934, Hitler attacked Poland on Sept. 1, 1939. Russian troops invaded from the east Sept. 17, 1939, and on Sept. 28 a German-Russian agreement was signed dividing Poland between Russia and Germany. W. Raczekiewicz formed a government-in-exile in France with Gen. Wladyslaw Sikorski as Premier; this government moved to London after France's defeat in 1940.

All of Poland was occupied by German after the Nazi attack on the Soviet Union in June, 1941. On July 30, 1941, Poland concluded an agreement with the U.S.S.R. voiding all German-Soviet agreements effected after Sept. 1, 1939.

The legal Polish government soon fell out with the Russians, however, and in July, 1944, a Communist-dominated Polish Committee of National Liberation received Soviet recognition. Moving to Lublin after that city's liberation, it proclaimed itself the Provisional Government of Poland on Dec. 31, 1944. Some former members of the Polish Government in London joined with the Lublin government to form the Polish Government of National Unity on June 28, 1945. Great Britain and the United States recognized this government on July 5, 1945.

On Aug. 2, 1945, in Berlin, Prime Minister Attlee, President Truman and Generalissimo Stalin established a new *de facto* western frontier for Poland, along the rivers Oder and Lausitzer Neisse, pending a final peace treaty. On Aug. 16 the Soviet Union and Poland signed a treaty delimiting the Soviet-Polish frontier. Under these agreements Poland was shifted westward. In the east it lost 69,860 square miles with 10,772,000 inhabitants; in the west it gained (subject to final peace conference approval) 38,986 square miles with a pre-war population of 8,621,000.

GOVERNMENT AND DEFENSE. The 1952 Constitution is based on that of the U.S.S.R. The supreme organ of state authority is the Sejm, composed of 425 members elected for four years by all citizens over eighteen.

ECONOMIC CONDITIONS. *Agriculture.* Poland remains essentially an agricultural country: the areas now under *de facto* Polish administration in the west accounted for 25 per cent of Germany's pre-war food production. Farm lands lost to the Soviet Union were considerably larger in area than those gained from Germany.

Industry. Industrial facilities, although severely damaged during World War II, were not greatly affected by territorial concessions to the U.S.S.R., with the exception of the Lwów area. On the other hand, important German industrial areas, especially Silesia and the city of Stettin, are located in the territories under *de facto* Polish administration. As a result, post-war Poland has a much larger industrial potential. Almost all industries have been nationalized or placed under state control, and a planned economy has been introduced as part of the government's drive to make Poland an industrial nation.

Trade. Foreign trade is largely conducted by government bodies under the terms of numerous trade agreements with other nations. Major exports in 1954 were coal and coke, other raw materials, and semi-manufactures and agricultural products (mainly bacon and ham). Major imports were machinery, textiles, chemicals, and mineral products.

NATURAL FEATURES AND RESOURCES. Most of Poland is a plain with no natural boundaries except the Carpathian Mountains on the south and the Oder and Neisse Rivers on the west.

The acquisition of large coal deposits in German Silesia combined with much larger reserves in the southwestern region, makes Poland one of the world's leading coal producers. Iron ore deposits are located in the Kielce and Radom districts and in German Silesia (metal content 34%). Zinc and lead ores are located chiefly in Upper Silesia and the voivod-

ships of Kielce and Kraków. Pre-war Poland's principal oil-producing areas, Boryslaw-Drohobycz, are in the territory ceded to the Soviet Union; Among other deposits, Poland possesses copper, sulfur, chalk, clay, kaolin, marble, and granite.

Portugal (Republic) (República Portuguesa)

Area: 35,358 square miles.

Population (est. 1957): 8,909,000 (practically all Portuguese).

Density per square mile: 249.9.

President: Gen. Francisco Higinio Cra-veiro Lopes.

Premier: António de Oliveira Salazar.

Principal cities (census 1950): Lisbon, 783,226 (capital, seaport); Oporto, 281,406 (seaport, port wine); Setúbal, 44,235 (seaport, sardines); Coimbra, 41,977 (university); Funchal (in Madeira Islands), 37,035 (Madeira wine).

Monetary unit: Escudo.

Language: Portuguese.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT: (See *World Politics* section.)

ECONOMIC CONDITIONS.

Portugal's corporate state has a planned economy in which each producing unit regulates itself in the interest of the nation. Corporate units have been established in agriculture, industry, and finance.

Sixty per cent of Portugal's people are engaged in agriculture. Although wheat is the leading crop, it is insufficient to meet domestic needs, and grain must be imported. One of the world's leading wine-makers, Portugal produces two famous kinds—Port in the vicinity of Oporto, and Madeira in the islands of the same name. In olive oil production, Portugal usually ranks third in the world.

Leading crops are wheat, barley, and oats.

In 1956 the principal customers were the Portuguese overseas territories (24%), Britain (14%), and the U. S. (10%); chief suppliers, Germany (16%), the Portuguese overseas territories (12%), and Britain (14%). The chief exports were cork (19%), fish, mainly sardines (12%), and wine (8%). Main imports included wheat and flour, ships, industrial machinery, raw cotton, and iron and steel.

NATURAL FEATURES AND RESOURCES. Portugal is crossed by many small rivers, and also by three large ones which rise in Spain, flow into the Atlantic, and divide the country into three geographic areas. The Minho (Miño in Spain) River, part of the northern boundary, cuts through a mountainous area that extends south to the vicinity of the Douro (Duero) River. South of the Douro the mountains slope to

the plains about the Tagus (Tejo) River. The remaining division is the southern one of Alentejo.

The Azores, stretching over a distance of 400 miles in the Atlantic, consist of 9 islands divided into three groups, with total area of 888 square miles. The nearest continental land is Cape da Roca, Portugal, which lies 800 miles to the east. The Azores are an important station on Atlantic air routes, and both Britain and the United States established air bases there during World War II. Madeira, consisting of two inhabited islands, Madeira and Porto Santo, and two groups of uninhabited islands, lies in the Atlantic about 535 miles southwest of Lisbon.

Mineral resources have not been fully developed, but wolfram, coal, iron ore, copper, manganese, iron pyrites, lead, tin, and other ores are found.

Portugal is one of the world's leading producers of cork.

The fishing industry is a basic part of the national economy. Of special importance is the sardine industry centered at Setúbal. The total fishing catch in 1955 was 390,600 metric tons.

PORTUGUESE OVERSEAS TERRITORIES

	Area, sq. mi.	Population, est. 1955
AFRICA		
Angola	481,351	4,362,264
Cape Verde Islands	1,557	172,000
Mozambique	297,731	6,040,000
Portuguese Guinea	13,948	541,000
São Tomé and Príncipe	372	58,000
ASIA		
Macao	6	200,000
Portuguese India	1,538	644,000
Timor	7,332	478,688

The status of the Portuguese overseas territories is fixed by the Colonial Act of July, 1930, included in the Constitution approved March 19, 1933, and revised in 1951. Each territory has a Governor or Governor General, appointed by the Council of Ministers for an initial 4-year term and responsible to the Minister of Overseas Territories at Lisbon. Each territory has financial and administrative autonomy.

ANGOLA (Portuguese West Africa)—Status: Overseas territory.

Capital: Loanda (pop. 1955: 189,590).

Governor General: José Agapito da Silva Carvalho.

Chief exports (1956): coffee (49%), diamonds (10%), fish meal (6%).

Agricultural exports (1956): coffee, 89,880 metric tons; sisal, 37,283 tons; cotton, 5,908 tons; sugar, maize, palm kernels and oil, peanuts, rice.

Minerals: diamonds (1956: 743,930 carats), lignite, copper.

Forest products: beeswax, timber.

Manufactures: sugar, palm oil, whale oil, fish oil.

Angola stretches along the west African coast for about 1,000 miles from Belgian Congo to the Cunene River. Outside of a coastal plain varying in width from thirty to 100 miles, the area is part of the great African plateau. The Angola coast and the Congo River were explored by the Portuguese in 1482-85, and Loanda was founded in 1576. A legislative council with an elected majority was established in Angola in 1955.

Angola is primarily an agricultural country. Its varied altitude enables it to produce both tropical and temperate crops. Excellent grazing land exists in many parts of the colony. The chief ports are Loanda and Lobito. The great majority of the population are of Bantu-Negro stock, mixed in the Congo district with pure Negro.

CAPE VERDE ISLANDS—Status: Overseas territory.

Capital: Praia (population 9,980).

Governor: Manuel Marques Abrantes Amaral.

Foreign trade (1956): exports, 288,453,000 escudos; imports, 308,242,000 escudos. Chief exports: ships stores (92%), preserved fish.

Agricultural products: coffee, millet, castor oil, oranges, hides.

This group of fourteen volcanic islands lying off the west African coast was discovered in 1456 by the Venetian captain Alvise Cadamosto, in the service of Prince Henry the Navigator. The island of São Vicente is an important fueling station on the South American route. The vast majority of the inhabitants are mulattoes and Negroes—descendants of slaves brought to the islands from Africa by early settlers. Public slavery was abolished in 1854, and private slavery in 1876.

MOZAMBIQUE (Portuguese East Africa)—Status: Overseas territory.

Capital: Lourenço Marques (population 93,265).

Governor General: Gabriel Maurício Teixeira.

Foreign trade (1956): exports, 1,515,400,000 escudos; imports, 2,736,322,000 escudos. Chief exports: cotton (20%), sugar (16%), copra, sisal, cashew nuts.

Agricultural exports (1956): cotton, 22,677 metric tons; sugar, 98,176 tons; copra, 41,377 tons; sisal, 27,940 tons; cashew nuts, 37,974 tons; tea, 6,276 tons.

Minerals: gold, coal, graphite, mica.

Forest products: mangrove bark, timber.

Mozambique, stretching for about 1,430 miles along Africa's southeast coast, was discovered by Vasco da Gama in 1497, although the Arabs had penetrated into the area as early as the 10th century A.D. It was first colonized in 1505, and by 1510 the Portuguese were masters of the former Arab sultanates on the east

African coast. The boundaries with British Central and South Africa were delimited in 1891, and with Tanganyika Territory in 1886 and 1890.

Agriculture is the chief industry. There are many large plantations, some of which are partially mechanized.

Ninety-nine per cent of the inhabitants are native Africans of the Bantu Tribes. The chief ports are Lourenço Marques and Beira, which is also the port for Rhodesia.

PORTUGUESE GUINEA—Status: Overseas territory.

Capital: Bissau (population 18,309).

Governor: Silva Tavares.

Foreign trade (1956): exports, 203,208,-366 escudos; imports (1954), 171,922,324 escudos. Chief exports: peanuts (53%), coconuts.

Agricultural products: peanuts (exports 1956: 34,027 metric tons), coconuts, copra, rice, palm oil.

Forest products: timber, wax, rubber.

This area, lying on the west African coast and almost surrounded by French West Africa, was discovered in 1446 by the Portuguese Nuno Tristão and was separated from the colony of the Cape Verde Islands in 1879. It consists of a low-lying coastal region and sixty islands off the coast. The country is undeveloped economically, and most of the natives are farmers. There are no railways, but navigable rivers totaling over 1,000 miles are important trade arteries.

SÃO TOMÉ AND PRÍNCIPE—Status: Overseas territory.

Capital: São Tomé (population 7,813).

Governor: Antônio Pires Barata.

Foreign trade (1955): exports, 161,703,-231 escudos; imports, 125,221,828 escudos. Chief exports: cacao (70%), copra (11%), coconuts, coffee.

Agricultural products: cacao, coffee, coconuts, copra, palm oil.

These volcanic islands, lying in the Gulf of Guinea about 150-175 miles off the west African coast, were discovered by the Portuguese in 1471. Most of the early inhabitants were convicts and Jews from Portugal and slaves from Brazil and the mainland, but the bulk of the present inhabitants are Negro contract laborers from the mainland and Cape Verde, engaged to work cacao plantations.

MACAO—Status: Overseas territory.

Capital: Macao (population 166,544).

Governor: Joaquim Marques Esparteiro.

Chief exports: fish, cement, preserves.

Manufactures: cement, preserves, firecrackers, vegetable oils, metal products.

Macao comprises the peninsula of Macao and the two small islands of Taipa and Colôane on the South China coast, about thirty-five miles from Hong Kong. Established by the Portuguese in 1557, it is the oldest European outpost in the China trade, but Portugal's sovereign rights to

the port were not recognized by China until 1887, and its boundaries are still not delimited. The port has been eclipsed in importance by Hong Kong, but it is still a busy distribution center, and also has an important fishing industry employing over 40,000 people. It is notorious for its opium trade and gambling houses. Most of the population is Chinese.

PORTUGUESE INDIA—Status: Metropolitan province.

Capital: Panjim (Nova Gôa) (population 31,950).

Governor General: Paulo Bénard Guedes. Foreign trade (1956): exports, 82,741,-364 rupias* (40% to Japan); imports, 114,051,886 rupias (19% from Britain). Chief exports: iron ore (71%), manganese ore (25%), cashew nuts.

Agricultural products: cashew nuts, coconuts, spices.

Minerals (exports 1956): iron ore, 2,046,-770 metric tons; manganese ore, 162,347 tons.

* 1 rupee = 5.97 escudos.

The area consists of Gôa and 3 islands on the Malabar coast of India; Damão and the territories of Dadará and Nagar-Aveli, on the Gulf of Cambay; and Diu, with the continental territories of Gocola and Simbor, on the coast of Gujarat. Gôa, captured in 1510 by the Portuguese, later became capital of the whole Portuguese empire in the east. The native population is largely Hindu.

TIMOR—Status: Overseas territory.

Capital: Dili (population 7,000).

Governor: Cesar Maria de Serpa Rosa.

Foreign trade (1956): exports, 38,687,000 escudos (34% to the Netherlands); imports, 56,598,000 escudos (28% from Portugal). Chief exports: coffee (80%), rubber.

Agricultural exports (1956): coffee (1,120 metric tons), rubber (231 tons), copra (1,114 tons).

Forest products: sandalwood, wax.

Portuguese Timor consists of the eastern half of the island of Timor in the Malay Archipelago, with the territory of Ambeno and two neighboring islands. It was first settled by the Portuguese early in the 16th century. In 1859 the island was divided between Portugal and the Netherlands; later boundary adjustments were made in 1904. Fishing and copra manufacture are important; trade is mostly in the hands of Chinese, Malaysians, and Arabs. Timor was occupied by Dutch and Australian troops in Dec., 1941, and by the Japanese in Feb., 1942.

Rumania (People's Republic)

(Republica Populara Româna)

Area: 91,654 square miles.

Population (census 1956): 17,579,000 (1948: Rumanian, 85.7%; Magyar, 9.4%; German, 2.2%; Jews, 0.9%; others [Turk-

ish, Ruthenian, Bulgarian, Gypsy, Ukrainian] 1.8%).

Density per square mile: 190.8.

Chairman of Presidium: Petru Groza.

Premier: Chivu Stoica.

Principal cities (census 1956): Bucharest, 1,236,906 (capital); Cluj, 154,752; (Transylvanian industrial center); Timisoara, 142,251 (western commercial center); Stalin (Brasov), 123,882 (industrial center); Ploesti, 114,560 (oil).

Monetary unit: Leu.

Languages: Rumanian, Hungarian, German, Turkish.

Religions (est. 1947): Eastern Orthodox, 81%; Greek Catholic, 9%; Roman Catholic, 7%; others, 3%.

HISTORY AND GOVERNMENT. Most of Rumania was the Roman province of Dacia from about A.D. 100 to 275. From the sixth to the twelfth centuries, wave after wave of barbarian conquerors—Vlachs, Bulgars, and others—passed over the area. It became a kingdom in 1881.

The gains of World War I, making Rumania the largest Balkan state, included Bessarabia, northern Transylvania, and Bukovina. The Banat, a Hungarian area, was divided with Yugoslavia.

In 1926 Crown Prince Carol renounced his rights to the throne, and when King Ferdinand died on July 20, 1927, Carol's son, Michael (Mihai) became King under a regency. However, Carol returned from exile in 1930, was crowned King Carol II, and gradually became a powerful political force in the country. On Feb. 10, 1938, he abolished the democratic Constitution of 1923. On June 21, 1940, the country was reorganized along Fascist lines, and the Fascist Iron Guard became the nucleus of the new totalitarian party. On June 27, the Soviet Union occupied Bessarabia and northern Bukovina. By the Axis-dictated Vienna Award of 1940, two-fifths of Transylvania went to Hungary, after which the King dissolved Parliament and granted the new Premier, Ion Antonescu, full power. Carol then abdicated and went into exile. Rumania subsequently signed the Axis Pact on Nov. 23, 1940, and the following June joined in Germany's attack on the U.S.S.R., reoccupying Bessarabia. Following the invasion of Rumania by the Red Army in Aug. 1944, King Michael led a coup d'état which ousted the Antonescu government. An armistice with the U.S.S.R. was signed Sept. 12 in Moscow.

Elections held Nov. 19, 1946, resulted in a victory for the Communist-dominated government bloc. Michael abdicated on Dec. 30, 1947, and thereafter the nation was declared a "people's republic."

ECONOMIC CONDITIONS. Rumania is predominantly agricultural, with about 80 per cent of the population engaged on the soil. In wheat, rye and other grains, it is one of the richest countries of southeastern Eu-

rope. The largest acreage is usually devoted to corn and wheat. Other crops are flax, hemp, fruit, vegetables, potatoes, sugar beets, sunflower seeds, tobacco, and grapes. Stock raising is also important.

Agrarian reform measures effected in 1945 provided for the distribution of estates over fifty hectares (123.6 acres) in lots of 12½ hectares to each peasant.

Industrialization made considerable progress under a 5-year plan covering the years 1951-55, which emphasized the iron, steel, metal, machinery, and other heavy industries. The Soviet half-share in Soviet-Rumanian joint companies, which control the major industries, was sold to Rumania in 1954. Industries directly connected with agriculture, such as flour milling, distilling, and brewing, are still of basic importance. Probably the most important industries are food processing, textiles, metals, chemicals, wood, and paper. All but small business enterprises are nationalized.

Foreign trade is under complete government control. Principal exports are petroleum products, cereals and cereal products, wood and wood products. Leading imports are iron and manufactures, machinery and motors, vegetable fibers and products.

NATURAL FEATURES AND RESOURCES. The Carpathian Mountains divide Rumania's upper half from north to south and connect near the center of the country with the Transylvanian Alps, running east and west.

North and west of these ranges lies the Transylvanian plateau, and to the south and east are the plains of Moldavia and Walachia. In its last 190 miles, the Danube River flows through Rumania only. It enters the Black Sea in northern Dobruja, just south of the border of the Soviet Union.

By far the most valuable of Rumanian minerals is oil, produced chiefly in the Ploesti region about thirty-five miles north of Bucharest.

Natural gas from Transylvania is the second most important mineral. Other important minerals are iron ore, lignite, copper, gold, and silver. Uranium deposits have been reported.

El Salvador (Republic) (República de El Salvador)

Area: 8,260 square miles.*

Population (est. July 1, 1956): 2,268,464 (mestizo, 78%; Indian, 11%; white, 11%).

Density per square mile: 274.6.

President: José María Lemus.

Principal cities (est. 1953): San Salvador, 180,713 (capital); Santa Ana, 56,952 (coffee); San Miguel, 28,730 (coffee henequén).

Monetary unit: Colón.
Language: Spanish.
Religion: Roman Catholic.

* Land area: 8,165 square miles.

HISTORY AND GOVERNMENT. Pedro de Alvarado, a lieutenant of Cortez, conquered El Salvador in 1525. El Salvador struck out as an independent republic in 1839 after the dissolution of the Central American Union.

In Jan., 1931, the first free election in 20 years brought in Arturo Araujo as President. He was overthrown before the year was over. General Maximiliano Hernández Martínez, his successor, remained in power until May, 1944, when a general strike forced his resignation. The next regime, also militarist-led, lasted only five months, and was succeeded March 1, 1945, by a regime headed by Salvador Castañeda Castro, who was ousted Dec. 14, 1948, by a revolutionary junta. Major Oscar Osorio, one of the junta's members, was named President in the March, 1950, elections. Col. José María Lemus was elected to succeed him in the March 1956 elections.

The Constitution provides for a President, popularly elected for six years and normally ineligible to succeed himself; also, a one-house legislature of 54 members.

ECONOMIC CONDITIONS. Mestizos (mixed white and Indian) are the predominant racial group. There are no tribal Indians.

El Salvador is one of the most intensively cultivated countries in Latin America. Coffee, which accounts for 85 per cent of the total exports, is controlled in volume by a commission of officials and planters. Cotton is second in importance.

El Salvador's largest national enterprise, the Lempa river hydroelectric project, began partial operation in 1953.

NATURAL FEATURES AND RESOURCES. Most of El Salvador is a fertile volcanic plateau about 2,000 feet high. There are several volcanoes, some still active, and many lovely crater lakes. It is the only Central American country without an Atlantic coastline.

Gold, silver, coal, copper, iron, zinc, mercury, and sulfur are the nation's chief minerals.

Forest resources, much smaller than in other Central American states, include dyewood, mahogany, cedar, and walnut. El Salvador is a leading source of balsam.

Executive: two Regents selected every six months by the Grand Council.

Principal town: San Marino (est. pop. 2,000) (capital).

Monetary unit: Lira.

Language: Italian.

Religion: Roman Catholic.

San Marino, the oldest and smallest republic in the world, is one-tenth the size of New York City. It is entirely surrounded by Italy, in the Apennines near Rimini. According to tradition, San Marino was founded about A.D. 350 and had good luck for centuries in staying out of the interminable wars and feuds on the Italian peninsula.

San Marino hires its police and judges from Italy. It no longer confers titles for a consideration, but it does derive much revenue from the exporting of its postage stamps, which are changed often to keep philatelists buying. Other exports are barley, wine and cattle, as well as building stone from Mount Titano.

Executive power is exercised by Regents, two of whom are appointed every six months from the popularly-elected Grand Council.

Saudi Arabia (Kingdom)

Area: c. 617,760 square miles.

Population (est. 1952): 7,000,000.

Density per square mile: c. 11.3.

King: Saud Ibn Abd al Aziz al Saud.

Prime Minister: Emir Faisal.

Principal cities (est. 1954): Mecca, 150,000 (joint capital, religious center); Jidda, 100,000 (chief port); Hufuf, 100,000 (commercial center); Riyadh, 80,000 (joint capital).

Monetary unit: Riyal.

Language: Arabic.

Religion: Moslem.

The kingdom of Saudi Arabia, which occupies most of the Arabian peninsula, is almost entirely the creation of King Ibn Saud (1882-1953). Its earlier history is that of Arabia. Descendant of earlier Wahabi rulers, Ibn Saud seized the emirate of Riyadh in 1901, and set himself up as leader of the Arab nationalist movement. The united kingdom of Saudi Arabia was one of the original members of the U. N. and joined the Arab League in 1945. King Ibn Saud died Nov. 9, 1953, and was succeeded by Saud (born 1905), the eldest of his many sons.

Saudi Arabia is a nearly absolute monarchy. A Council of Ministers headed by the Prime Minister was formed in Oct., 1953. Hejaz and Nejd are under separate administrations. Tribal organizations are influential. There is a small army. In March, 1958, King Saud turned over to his brother, Emir Faisal, full powers to lay down the state's internal, external, and financial policies.

San Marino (Republic)

Area: 38 square miles.

Population (est. 1955): 14,000 (mostly Italian).

Density per square mile: 368.4.

The majority of the inhabitants are Bedouin—nomads following their flocks over the desert. The population is predominantly Sunni Moslem, and the religious law of Islam is the common law of the land. Mecca and Medina are the leading religious centers of Islam and the annual influx of pilgrims to those cities is the most important commercial activity outside the oil industry.

Saudi Arabia's desert climate restricts agriculture to the highlands of Asir and scattered oases. Dates are the staple crop; grain, fruits, and vegetables are also grown. Camels, sheep, and goats are raised and some animal products, such as hides, wool and ghee (clarified butter), are exported.

Oil, discovered in 1936 in the province of Al Hasa along the Persian Gulf, is produced by the U. S.-owned Arabian-American Oil Co. (Aramco). The main production centers are Dhahran, Abqaiq, Qatif, and Ain Dar. Production has skyrocketed since World War II. The company's expenditures and payroll are important invisible exports and oil revenues have greatly strengthened the financial position of the kingdom, which receives one-half the company's profits. The oilfields are connected by pipeline with the Mediterranean port of Sidon, Lebanon.

Siam. See Thailand

Spain (Nominal Monarchy)

(España)

Area: 194,945 square miles.

Population (est. Dec. 31, 1956): 29,431,000 (Spanish, Basque, Catalan).

Density per square mile: 149.4.

Chief of State: Francisco Franco y Bahamonde.

Principal cities (est. Dec. 31, 1956): Madrid, 1,843,705 (capital); Barcelona, 1,403,028 (chief port, textiles); Valencia, 511,440 (silk, oranges); Seville, 405,853 (wines, iron ore); Málaga, 277,824 (sea-port); Saragossa, 274,222 (rail center).

Monetary unit: Peseta.

Languages: Spanish, Basque, Catalan.

Religion: Roman Catholic.

HISTORY AND GOVERNMENT (See *World Politics* section). General Francisco Franco is head of the state, national chief of the Falange party, Prime Minister, and *Caudillo* (leader) of the empire. Practically, the country is ruled by the Cabinet (appointed by Franco), the National Council of the Falange party, and, to a lesser extent, the Cortés (parliament). The principal function of the Cortés is the planning and formulation of laws without prejudice to Franco's veto power. Cabinet ministers, party officials, civil governors, university

heads, and the presidents of learned bodies become members of the Cortés *ex-officio*. There is no provision for the introduction of legislation by any of the members.

In a referendum held July 6, 1947, the Spanish people approved a Franco-drafted succession law declaring Spain a monarchy again. Franco, however, is to continue as Chief of State and upon his death or incapacity the government and a Council of the Realm constituted by the law are to nominate as King "that person of royal blood who is most qualified by right," subject to the approval of the Cortés. The law reserves to Franco the right to nominate his own successor, subject also to the Cortés approval by two-thirds vote.

ECONOMIC CONDITIONS. Livestock included in 1955, 3,011,000 cattle, 16,312,000 sheep, and 5,980,000 hogs. Wool production in 1956 was 21,000 metric tons, clean basis.

Leading customers in 1956 included Britain, Germany, the United States, and France; leading suppliers, the United States, France, Britain, and Germany. Leading exports in 1956 were iron ore and oranges. Principal imports were raw cotton, chemical products (especially fertilizer), petroleum, and vehicles.

Industry. The textile industry, concentrated in Catalonia, leads all others. The paper and chemical industries are also important. Pig iron and steel are important.

NATURAL FEATURES AND RESOURCES. Spain, less than ten miles from Africa at the closest point, and separated from France by the Pyrenees, is generally a broad plateau sloping to south and east and crossed by a series of mountain ranges and river valleys.

Minerals. Spain's mineral wealth, second to agriculture in the national economy, yields millions of tons of ore, including coal, lignite, iron ore (metal content 50%), potash ore, lead ore, zinc ore, and mercury. Spain also produces copper, gold, magnesite, sulfur, tungsten, phosphates, silver, and, reportedly, uranium.

Forests and Fisheries. Spanish forests yield lumber, pine resins, cork, and esparto.

SPANISH COLONIAL POSSESSIONS

Country	Area, sq. mi.	Census, 1950
Morocco		
Ifni	579	38,295
Ceuta, Melilla, Alhucemas, Chafarinas and Peñon de Velez	82	141,302
Spanish Sahara		
Rio de Oro	71,043	1,304
Sagula el Hamra	31,660	6,444
Spanish Guinea	10,831	198,663

Some 100,000 persons work in the fishing, canning, and related industries.

OUTLYING ISLANDS. Off Spain's east coast in the Mediterranean are the Balearic Islands, which total 1,936 square miles. The largest is Majorca. Sixty miles west of Africa are the Canary Islands.

Sudan, The (Republic)

Area: 967,500 square miles.

Population (census 1955-56)*: 10,209,703.

Density per square mile: 10.6.*

Chief executive: five-member Council of State.

Prime minister: Abdullah Khalil.

Principal cities (census 1955-56)*: Omdurman, 113,686 (commercial center); Khartoum, 92,829 (capital); El Obeld, 52,382 (gum arabic); Wad Medani, 48,131 (cotton, livestock); Port Sudan, 47,650 (chief port).

Monetary unit: Sudanese pound.

Languages: English, Arabic, Nilotic and Negro tribal dialects.

Religions: Moslem (Sunni), pagan, Christian.

* Provisional figures.

HISTORY. The early history of the Sudan (known as the Anglo-Egyptian Sudan between 1898 and 1955) is connected with that of Nubia, where a powerful local kingdom was formed in Roman times with its capital at Dongola. After conversion to Christianity in the sixth century A.D., it joined with Ethiopia and resisted Mohammedanization until the fourteenth century. Thereafter the area was broken up into many small states until 1820-22, when it was conquered by Mohammed Ali, Pasha of Egypt. Egyptian forces were evacuated during the Mahdist revolt (1881-98), but the Sudan was reconquered by the Anglo-Egyptian expeditions of 1896-98 and in 1899 became an Anglo-Egyptian condominium, which was reaffirmed by the Anglo-Egyptian treaty of 1936.

Egypt and Britain agreed in Feb., 1953, to grant self-government to the Sudan under an appointed Governor-General. Under the self-government statute of March 31, 1953, an all-Sudanese Parliament was elected in Nov.-Dec., 1953, and an all-Sudanese government was formed, headed by Ismail el-Azhari as Prime Minister. Under the agreement the Sudanese people were to determine their political status at the end of a 3-year period following the elections, but in Dec., 1955, the Parliament declared the independence of the Sudan, which, with the approval of Britain and Egypt, was proclaimed on Jan. 1, 1956. El-Azhari was replaced as Prime Minister by Abdullah Khalil on July 5. On March 20, 1958, the newly elected House of Representatives selected Abdullah Khalil to continue as Premier.

GOVERNMENT. The government is administered by the Prime Minister and his Cabinet. A bicameral Parliament has a Senate of fifty members and a House of Representatives of ninety-seven elected members.

ECONOMIC CONDITIONS. The northern part of the country is peopled by Arabic-speaking Moslems, while in the backward south Negroid pagan tribes predominate.

Long-staple cotton, the chief export crop, is grown under irrigation in the Kassala and Tokar areas of the north and in narrow strips along the main Nile. Durra, peanuts, corn, and oilseeds are grown elsewhere. Livestock raising is the occupation of the majority of the population.

Leading exports in 1956 were cotton (62%), gum arabic (8%), cottonseed (7%), and peanuts (6%). Leading customers were Britain (33%), India (13%), and Egypt (11%); leading suppliers, Britain (21%), Egypt (14%), and India (12%).

NATURAL FEATURES AND RESOURCES. About one-fourth the size of Europe, the Sudan extends from north to south about 1,200 miles and west to east about 1,000 miles. The northern region is a continuation of the Libyan Desert. The southern region is fertile, abundantly watered and, in places, heavily forested. It is traversed from north to south by the Nile, all of whose great tributaries are partly or entirely within its borders. The highest elevation is a mountain range parallel to the Red Sea, with heights of 4,000 to over 7,000 feet.

Salt is produced at Port Sudan, and gold deposits are worked at Gebelt, near the Red Sea. Most of the world's gum arabic comes from the semiarid Kordofan area of the west. The southern forests are rich in fibers and tannins.

Sweden (Kingdom)

(Sverige)

Area: 173,564 square miles.

Population (est. Dec. 31, 1956): 7,369,000 (practically all Swedish).

Density per square mile: 42.3.

Sovereign: King Gustavus VI Adolphus.

Prime Minister: Tage Frihof Erlander.

Principal cities (est. Dec. 31, 1956): Stockholm, 794,113 (capital); Göteborg, 387,061 (chief port, shipbuilding); Malmö, 213,260 (seaport); Norrköping, 89,226 (textiles); Helsingborg, 74,947 (seaport).

Monetary unit: Krona.

Language: Swedish.

Religions: Swedish Lutheran, 99%; others, 1%.

HISTORY AND GOVERNMENT (See *World Politics* section).

SOVEREIGN. Gustavus VI Adolphus, born Nov. 11, 1882, married (1) 1905, Princess Margaret Victoria (1882-1920); (2) 1923, Princess Louise Mountbatten (born 1889). To his first marriage was born Prince Gustavus Adolphus (born Apr. 22, 1906, killed in air crash Jan. 26, 1947), who was married in 1932 to Sihylla, Princess of Saxe-Coburg-Gotha; their offspring include a son, Carl Gustavus, the heir apparent, born April 30, 1946, and four daughters. Gustavus VI became King Oct. 30, 1950, on the death of his father, Gustavus V, who had reigned since 1907.

ECONOMIC CONDITIONS. *Agriculture.* Milk, butter, meat, grain, potatoes, and sugar beets are products of the broad fertile plains of the south; the north is limited to cattle raising and dairy farming.

The 1956 livestock estimates showed 284,000 horses, 2,324,000 cattle, 157,000 sheep, and 1,573,000 hogs.

Industry. The highly specialized machine industry produces separators, motors, electrical machines and apparatus, agricultural machinery, ball bearings, telephone equipment, and harbor works.

There are also large woolen, glass, and porcelain industries. Shipyards build for both Swedish and foreign fleets. The timber and woodworking industries are extensive.

Trade. Leading exports in 1956 were wood pulp (18%), machinery and apparatus (13%), timber (12%), and iron ore (10%). Leading customers were Britain (18%), western Germany (14%), Norway (8%), and the Netherlands (6%). Leading suppliers were western Germany (22%), Britain (14%), the United States (10%), and Norway (4%). The principal imports included machinery, petroleum and products, textiles and clothing, and automobiles.

NATURAL FEATURES AND RESOURCES. Sweden slopes eastward and southward from its peak elevation in the Kjölen mountains along the Norwegian border. In the north are mountains and many lakes. To the south and east are central lowlands, and south of them are fertile areas of forest, valley, and plain. Along Sweden's rocky coast, chopped up extensively by bays and inlets, are many islands, the largest of which are Gotland and Oland.

Minerals. Sweden's iron ore deposits (metal content 60%) are among the world's richest. Those in central Sweden produce principally for domestic use, while the ones in Lapland to the north are worked largely for export, with much of the output being shipped through the Norwegian port of Narvik. Other major minerals are copper, gold, lead, arsenic ore, manganese ore, and silver. Coal production (294,000 tons in

1956) is comparatively small; imports of several million tons a year are therefore necessary.

Forests and Fisheries. About 60 per cent of Sweden is forested, mostly conifers, and there are vast forest products industries in the north. Sweden supplies a large percentage of the world's mechanical and chemical pulp.

Switzerland (Republic)

(Schweiz-Suisse-Svizzera)

Area: 15,941 square miles.

Population (est. 1957): 5,117,000 (Swiss, 91.2%; German, 3.6%; Italian, 3.1%; French, .9%; others, 1.2%—figures by place of birth).

Density per square mile: 318.3.

President (1958): Thomas Holenstein.

Principal cities (est. Dec. 1956): Zürich, 422,000 (textiles, banking); Basel, 197,000 (rail center; Rhine port); Geneva, 164,400 (intellectual center); Bern, 158,700 (federal capital).

Monetary unit: Swiss franc.

Languages: German, 71.9%; French, 20.4%; Italian, 6.0%; Romansch, 1.1%; others, .6%.

Religions: Protestant, 57%; Roman Catholic, 41%; Jewish, .4%; others, 1.6%.

* The vice president ordinarily becomes president the next year. Vice-president in 1958: Paul Chaudet

HISTORY AND GOVERNMENT (See *World Politics* section).

ECONOMIC CONDITIONS. In 1956 the leading customers were western Germany (12%), the United States (10%), Italy (8%), France (6%), and Britain (5%). Leading suppliers were western Germany (24%), the United States (13%), France (11%), Italy (10%), and Britain (5%). Leading exports were machinery (21%), clocks and watches (20%), chemicals and drugs (14%), and textiles and clothing (12%). Switzerland has a world-wide reputation for its highly skilled work in the manufacture of precision instruments, especially watches.

The Rhine, navigable from Basel to the North Sea, is the principal inland waterway. Railways built over rugged terrain, entailing construction of many bridges and tunnels, total about 4,900 miles, mostly electrified.

NATURAL FEATURES: Most of Switzerland comprises a mountainous plateau bordered by the great bulk of the Alps on the south and by the Jura Mountains on the northwest. About a fourth of the total area of Switzerland is covered by scenic mountains and glaciers.

The country's largest lakes, Geneva, Constance (Boden See), and Maggiore, straddle the French, German-Austrian, and Italian borders, respectively.

Syria (Republic)

(Al-Jamhourya as-Souriya)

Egypt and Syria united in February, 1958, to form the United Arab Republic.

Area: 70,014 square miles.

Population (est. 1956): 3,970,000 (Arab, Armenian, Kurdish, Turkish, French).

Density per square mile: 57.5.

President: Gamal Abdel Nasser.

Principal cities (est. 1955): Damascus, 408,774 (capital); Aleppo, 407,613 (northern trading center); (est. 1954) Homs, 293,643 (farming, silk); Hama, 172,988 (Bedouin trading center).

Monetary unit: Syrian pound (£S).

Languages: Arabic, Aramaic, French.

Religions (est. 1949): Moslem, 85%; Christian, 13.9%; Jewish, 1%; others, .1%.

HISTORY. Ancient Syria was conquered by Egypt about 1500 B.C., and after that by Hebrews, Phoenicians, Assyrians, Chaldeans, Persians, and Greeks. From 64 B.C. until the Arab conquest in A.D. 636, it was part of the Roman Empire except during brief periods. The Arabs made it a trade center for their whole empire, but it suffered severely from the Mongol invasion in 1260 and fell to the Ottoman Turks in 1516. Syria remained a Turkish province until World War I.

A secret Anglo-French pact of 1916 put Syria in the French zone of influence. The League of Nations gave France a mandate over Syria after World War I, but the French were forced to put down several nationalist uprisings. In 1930, France recognized Syria as an independent republic, but still subject to the mandate. After nationalist demonstrations in 1939, the French High Commissioner suspended the Syrian Constitution. In 1941, British and Free French forces invaded Syria to eliminate Vichy control. During the rest of World War II, Syria was an Allied base. Again in 1945, nationalist demonstrations broke into actual fighting, and British troops had to restore order. Syrian forces met a series of reverses while participating in the Arab invasion of Palestine in 1948. After Mar. 30, 1949, when the government was overthrown by Husni Zayim, there were several army coups d'etat. That of Nov. 29, 1951, was engineered by Col. Adib Shishakly. Elected President in July, 1953, Shishakly was ousted on Feb. 25, 1954, by the army, which named Hachem Bey el-Attassi President. On Aug. 18, 1955, Shukri al-Kuwatly was elected President. In February, 1958, with the formation of the United Arab Republic through the union of Egypt and Syria, Gamal Abdel Nasser became President of the new Republic and Kuwably, who had been instrumental in the Egyptian-Syrian negotiations, retired from public office.

ECONOMIC CONDITIONS. Agriculture and animal breeding are the main industries. Only half the land is arable, and only a third is actually cultivated. Most crops require irrigation. Leading crops include sorghum, olives, cotton, wheat, barley, grapes, lentils, and tobacco. Stock raising is important among nomads.

Leading exports in 1956 were raw cotton (29%), wool (7%), and sheep (6%). Principal customers were Lebanon (21%), France (20%), and Italy (10%); leading suppliers, Britain (13%), the United States (11%), and western Germany (10%).

NATURAL FEATURES. Coastal Syria is a narrow plain. Back of that is a range of coastal mountains, and still farther inland is a steppe area. In the east is the Syrian Desert, and in the southeast next to Jordan is the Jebel Druze Range.

Thailand (Siam) (Kingdom)

(Muang Thai)

Area: 198,270 square miles.

Population (est. 1957): 21,076,000 (1937: Thal, 90%*; Chinese, 3.4%; Indian and Malayan, 3.4%; others, 3.2%).

Density per square mile: 104.3.

Ruler: King Rama IX.

Prime Minister: Sarit Thannarat.

Principal cities (census 1947): Bangkok, 620,830 (capital, chief port); Khon Kaen, 153,934 (trading center); Buri Ram, 129,000 (farming); Thonburi, 118,682 (market center).

Monetary unit: Baht.

Languages: Thai (Siamese), Chinese.

Religions (census 1947): Buddhist, 95%; Moslem, 4%; others, 1%.

* Including about 2,500,000 of Chinese descent born in Siam.

HISTORY. The Siamese first began moving down into their present homeland from the Asiatic continent in the sixth century A.D., and by the end of the thirteenth century ruled most of the western portion. During the next 400 years, the Siamese fought sporadically with the Cambodians to the east and the Burmese to the west. The British obtained recognition of paramount interest in Siam in 1824, and in 1896 an Anglo-French accord guaranteed Siamese independence.

A coup on June 24, 1932, changed the absolute monarchy into a representative government with universal suffrage. After five hours of token resistance on Dec. 8, 1941, Siam yielded to Japanese occupation and became one of the springboards in World War II for the Japanese campaign against Malaya. After the fall of its pro-Japanese puppet government in July, 1944, Siam pursued a policy of passive resistance against the Japanese, and on Aug. 16, 1945, after the Japanese surrender, Siam repudiated the declarations of war it had made against Britain and the United States in 1942.

By a treaty signed with Britain and India Jan. 1, 1946, Siam renounced all wartime acquisitions of Malayan territory and agreed that no canal linking the Gulf of Siam with the Indian Ocean would be cut across Siamese territory without British concurrence.

RULER. Rama IX, who was born Dec. 5, 1927, second son of Prince Mahidol of Songkhla, succeeded to the throne on June 9, 1946, when his brother, King Ananda Mahidol, died of a gunshot wound. He was married on April 28, 1950, to Princess Kitiyakara; their son, Vajiralongkorn, born July 28, 1952, is heir apparent.

ECONOMIC CONDITIONS. Almost 90 per cent of the population work at agriculture. Rice is the principal crop, the staple food and the leading export. It is the basis of Thailand's whole economy and the key to its prosperity. Next most important is rubber. Other products include coconuts, corn, tobacco, cotton, sesame, sugar cane, and soybeans. Livestock, poor in quality and quantity, is used mainly for hauling. Manufacturing is of little importance. Domestic business is largely controlled by Chinese.

Chief exports in 1956 were rice (41%), rubber (22%), and tin (7%). Leading customers were Malaya and Singapore (29%), the United States (25%), and Japan (9%); leading suppliers, Japan (17%), the United States (16%), and Hong Kong (16%).

NATURAL FEATURES AND RESOURCES. Thailand, about three-fourths the size of Texas, supports most of its population in the central alluvial plain which is drained by the Chaopaya River and tributaries. There are small deposits of many important minerals, and some precious stones. Only tin, gold, tungsten, and salt are in commercial production.

Almost 70 per cent of Thailand's total land area is forested. Teak, the main forest product, covers over one-third of this area, chiefly in the northern hill country.

Trieste

This former free territory (293 sq. mi.) on the northeastern Adriatic was divided *de facto* between Italy and Yugoslavia under the provisions of a memorandum of understanding signed Oct. 5, 1954. Most of the area (202 sq. mi.) went to Yugoslavia; the smaller (91 sq. mi.) but far more densely populated part, including the city of Trieste, went to Italy.

The free territory had been created under the provisions of the Italian peace treaty of 1947 and was to be under U. N. protection. It proved to be impossible to implement the treaty provisions, and

Yugoslav and Anglo-U. S. occupation forces had continued the occupation begun in 1945 of substantially the areas transferred to Yugoslavia and Italy, respectively, in 1954.

Tunisia (Republic)

Area: 48,332 square miles.

Population (est. 1957) 3,800,000. (1946, by place of birth: Tunisian, 89.9%; French, 4.5%; Italian, 2.6%; others, 3%). Density per square mile: 78.3.

President: Habib Bourguiba.

Principal cities (census 1956)*: Tunis, 410,000 (capital); Sfax, 65,635 (phosphate port); Sousse, 48,172 (seaport); Bizerte, 44,461 (seaport and naval base).

Monetary unit: Tunisian franc.

Languages: Arabic, French, Italian.

Religion: Predominantly Moslem.

HISTORY. Tunisia was settled by the Phoenicians and Carthaginians in ancient times. Except for an interval of Vandal conquest in A.D. 439-533, it was part of the Roman Empire until the Arab conquest of 648-69. Then it was ruled by various Arab and Berber dynasties until the Turks took it in 1570-74. The founder of the present dynasty, Hussein ben'Ali, was proclaimed sovereign by the occupation troops in 1705 and later succeeded in making the office hereditary, although subject to nominal Turkish sovereignty.

Throughout much of its history, Tunisia was essentially a pirate state, preying on Mediterranean shipping. In modern times, Italy became predominant economically in the area, but after French troops occupied the area in 1881, the Bey signed a treaty acknowledging a French protectorate.

Following the Allied landings in North Africa in 1942, Tunisia became a battleground with the Axis forces pinched between the British 8th Army advancing from Libya and the U. S., British and French forces from Algeria. The Axis units surrendered in May 1943, and Tunisia was turned over to the De Gaulle government.

Nationalist agitation forced France to grant internal autonomy to Tunisia in June 1955 and to recognize Tunisian independence and sovereignty in March 1956. Tunisia was admitted to the U. N. Nov. 12, 1956. The Constituent Assembly deposed the Bey on July 25, 1957, declared Tunisia a republic and elected Habib Bourguiba as the first President.

ECONOMIC CONDITIONS.

Agriculture is the chief industry. Over a quarter of the arable land is in wheat. Other important crops are barley, oats, corn, sorghum, beans, and peas. The Cap Bon region is largely devoted to citrus fruits, the southern oases to dates. In 1955

there were 3,352,100 sheep, 482,000 cattle, 1,853,000 goats and 202,000 camels.

Leading industries include flour milling, oil refining, lead smelting, and distilling. Native industries include the spinning and weaving of wool, and the making of pottery and leather goods.

Tunisia, Algeria, and France are under a single customs union for a number of products.

Leading exports in 1955 were phosphates (15%), wheat (12%), iron ore (8%), and olive oil (7%). France took 55% of the exports and supplied 75% of the imports.

NATURAL FEATURES AND RESOURCES. Tunisia, at the northernmost bulge of Africa, thrusts out toward Sicily to mark the division between the eastern and western Mediterranean. It is mountainous in the north, covered by plains in the east, and projects southward to the Sahara area.

Tunisia's extremely rich deposits of phosphates are mined principally in the Gafsa and Kef regions. The iron ore is of good quality (55% metal content). Other minerals are lead, zinc, mercury, manganese, copper, and salt.

Turkey (Republic) (Türkiye Cumhuriyeti)

Area: 296,185 square miles.

Population (est. 1956): 24,797,000 (Turkish, 94%; Greek, 2.2%; Bulgarian, 1.4%; Yugoslavian, .9%; others, 1.5%).*

Density per square mile: 83.7.

President: Celâl Bayar.

Premier: Adnan Menderes.

Principal cities (census 1955): Istanbul, 1,214,616 (chief port, commercial center); Ankara, 453,151 (capital); Smyrna, 286,310 (seaport); Adana, 172,465 (agricultural center); Bursa, 131,336 (silk, carpets); Eskişehir, 122,755 (trading center).

Monetary unit: Turkish pound (£T).

Languages: Turkish, Greek, Bulgarian.

Religions: Moslem, 98.6%; others, 1.4%.

* 1935 by place of birth.

HISTORY AND GOVERNMENT. The Ottoman Turks first appeared in the early thirteenth century A.D. Under the leadership of their Sultans, they gradually spread their hegemony over most of the Near East and the Balkans, capturing Constantinople in 1453 and storming the gates of Vienna in the seventeenth century. At the height of its power, the empire stretched from the Persian Gulf to the frontiers of Poland and from the shores of the Caspian Sea to Oran in Algeria.

The defeat of the Turkish navy at Lepanto in 1571 by the Holy League and of Turkish forces besieging Vienna in 1683 portended the decline of Ottoman power,

reducing Turkey to the status of a pawn in Europe's political maneuvers. Russia moved into the Balkans in the eighteenth century and made herself official protector of the Balkan Christians. Fear of a Russian drive on Constantinople prompted England and France to declare war on Russia, and the Crimean War (1853-56) followed. As a result of the Russo-Turkish war (1877-78), Bulgaria became practically independent, and Rumania and Serbia threw off their nominal allegiance to the sultan. Further defeats were suffered by Turkey in a war with Italy (1911-12) and in the Balkan Wars (1912-13). Meanwhile, a revolt led by the Young Turks, an organization of youthful liberals, had forced the abdication of Sultan Abdul-Hamid in 1909 and established a constitutional regime.

On Aug. 2, 1914, at the outbreak of World War I, a secret alliance was signed between Germany and Turkey, whose army was advised by a German military mission, and in September the Allies declared war on Turkey. Turkish forces successfully defended the strategic Dardanelles, but British forces seized Palestine, Mesopotamia, and Syria; and the Hejaz revolted. By 1918 Allied forces held the territory along the Dardanelles and the Bosphorus, and later Greek forces occupied Smyrna.

In 1919 the new Nationalist party, headed by Mustafa Kemal, was organized to resist the Allied occupation, and in 1920 a National Assembly elected Mustafa Kemal President of both the Assembly and the government. Under his leadership, the Nationalist government was recognized by foreign powers, the Greeks were driven out of Smyrna, and other Allied forces were withdrawn. The present Turkish boundaries (with the exception of Alexandretta, ceded to Turkey by France in 1939) were fixed by the Treaty of Lausanne (1923) and later negotiations. The caliphate and sultanate were separated and the sultanate abolished on Oct. 1, 1922. On Oct. 29, 1923, Turkey formally became a republic with Mustafa Kemal, who took the name of Kemal Atatürk, as its first President. He proceeded to carry out an extensive program of reform, modernization, and industrialization.

The Montreux Convention (1936) gave Turkey sole responsibility for the defense of the Dardanelles.

General Ismet İnönü was elected to succeed Kemal Atatürk on the latter's death in 1938 and was re-elected in 1939, 1943, and 1946, but was defeated in 1950 and succeeded by Celâl Bayar. On Oct. 19, 1939, a mutual assistance pact was concluded with Britain and France. Turkey followed a neutral course during most of World War II, but on Feb. 23, 1945, she declared war on Germany and Japan, but took no active part in the conflict. After

the abrogation of the Soviet-Turkish non-aggression pact in March, 1945, Turkey was subjected to Soviet pressure for a share in the control of the Dardanelles. To assist Turkey in effecting modernization necessary for the preservation of its national integrity, the United States in 1947 agreed to advance \$100,000,000, all of which was to be used for the armed forces or to a lesser extent for economic projects directly related to Turkish defense. Turkey also received aid under the European Recovery Program. It became a full member of NATO in 1952. (For further information on Turkish foreign policy and U. S. economic aid see article on the Middle East in *World Politics* section.)

The Constitution, as amended in 1937, defines the state as "republican, nationalist, populist, étatist, secular, and revolutionary." The President is chosen from the deputies of the National Assembly; his term of office is identical with the life of each Assembly. The members of the Assembly are elected by universal suffrage for a term of four years. According to the Turkish Constitution, the Assembly exercises the executive power through the President and the Council of Ministers (cabinet) which is appointed by him.

The Republican People's party, which had been in power since 1923, was overwhelmingly defeated in free elections held May 14, 1950, by the Democratic party. The latter was retained in office by an even wider margin in elections held May 2, 1954, in which it won 503 seats in the Assembly.

In the October, 1957, elections the Democratic Party obtained a total of 424 seats in the Grand National Assembly, thus losing 79 seats since the previous election, while the Republican People's Party gained a total of 178 seats. The Liberal Party and the Republican National Party each won 4 seats.

ECONOMIC CONDITIONS. *Agriculture and Industry.* Agriculture is the principal economic activity, engaging about 65 per cent of the population. Only about 20 per cent of the land is under cultivation, but the government has made great efforts to modernize and improve farming. The most important cash crop is tobacco. Cotton is grown in the south of Asia Minor while figs come exclusively from the Smyrna region. Grain crops, with 1956 production in metric tons, include wheat and barley. Turkey is a leading exporter of olive oil; the Brusa region and the Ionian coast are the principal areas of cultivation. Opium poppies are grown in the Smyrna, Malatia, and Tokat regions.

Turkey is rich in livestock. The most important animal is the goat, of which there were 21,045,000 in Dec., 1953, including the valuable Angora, which thrives on

the uplands of the plateau. There were also (Sept., 1956) 26,444,000 sheep, 11,059,000 cattle, and 1,214,000 horses. Wool production in 1956 was 20,000 metric tons, clean basis.

Staple industries have been established in iron, steel, textiles, paper, glass, sugar, and cement. A large proportion of the factories are government-operated. Istanbul is the major industrial area.

Principal customers in 1956 were the United States (20%), western Germany (17%), Italy (10%), and Britain (8%). Leading suppliers were western Germany (24%), the United States (21%), Britain (8%), and Italy (6%). Chief exports were tobacco (31%), hazelnuts (10%), cotton (9%), and chrome (8%); leading imports, machinery, iron, steel, fuel, and oil.

NATURAL FEATURES AND RESOURCES. Turkey is divided into two natural areas by the historic waterway formed by the Dardanelles, the Sea of Marmara, and the Bosphorus.

Turkey in Europe comprises an area about equal to the state of Massachusetts. It is hilly country drained by the Maritsa River and its tributaries. Almost all the population is concentrated in and near the two important towns, Istanbul (Constantinople) and Edirne (Adrianople). Turkey in Asia, or Anatolia, about the size of Texas, is roughly a rectangle in shape with its short sides on the east and west. Its center is a treeless plateau rimmed by mountains.

Minerals and Forests. Turkey's rich mineral resources are still comparatively unexploited. Deposits of copper are found in the large field at Arghana, near the Iraq-Syrian frontier. Turkey is also relatively rich in coal, with large deposits in the Ereğli region on the Pontic coast some 150 miles from Istanbul. A virtual world monopoly is enjoyed in meerschaum, found in the Eskişehir district. Other important minerals include chromite, petroleum, manganese ore, iron ore (metal content 65%), emery, and antimony.

Union of Soviet Socialist Republics

Area: 8,602,700 square miles.

Population (est. April 1956)*: 200,200,000 (1939: Great Russian, 58.4%; Ukrainian, 16.6%; Byelorussian, 3.1%; Uzbek, 2.9%; Tartar, 2.5%; Kazakh, 1.8%; Armenian, Azerbaijani, Georgian, each 1.3%; more than 100 others, 10.8%).

Density per square mile: 23.3.

Chairman of Presidium of Supreme Council: Klementi E. Voroshilov.

Premier: N. S. Khrushchev.

Principal cities (est. April 1956)*: Moscow, 4,389,000 (capital); Leningrad, 2,814,000 (industrial center, shipbuilding); Kiev

991,000 (Industrial center, Ukraine); Baku, 901,000 (oil center, Azerbaijan); Kharkov, 877,000 (iron and steel, coal); Gorki, 876,000 (Industrial, transportation center); Tashkent, 778,000 (textiles, tobacco); Kuybyshev, 760,000 (Industrial center, Volga port); Novosibirsk, 731,000 (Siberian Industrial center); Sverdlovsk, 707,000 (Ural Industrial center); Tbilisi, 635,000 (building materials, tobacco); Stalino, 625,000 (coal, metallurgy).

Monetary unit: Rouble.

Languages: See Population, above.

Religions: Russian Orthodox (predominant), Moslem, Roman Catholic, Jewish, Lutheran.

* Official estimate of the Central Statistical Board of the Soviet Council of Ministers.

HISTORY. The history of Russia begins with the perhaps legendary figure of the Viking, Rurik, who according to tradition came to Russia in A.D. 862 and founded the first Russian dynasty in Novgorod. The various tribes were united by the spread of Christianity in the 10th and 11th centuries; Vladimir "the Saint" was converted in 988. During the 11th century the grand dukes of Kiev held such centralizing power as existed. In 1240 Kiev was destroyed by the Mongols, and the Russian territory was split into numerous smaller dukedoms, out of which three large centers emerged—Galicia, Moscow and Novgorod. The early dukes of Moscow extended their dominions through their office of tribute collector for the Mongols.

In the late 15th century, Ivan III, the reigning duke, acquired the rival kingdoms of Novgorod and Tver and threw off the Mongol yoke. Ivan IV, the Terrible (1533-84), first Muscovite duke to assume the title of Tsar, is considered to have founded the Russian State. He crushed the power of rival princes and boyars (great land-owners), but Russia remained largely medieval until the reign of Peter the Great (1682-1725), grandson of the first Romanov Tsar, Michael (1613-45). Peter made extensive reforms aimed at westernization, and through his defeat of Charles XII of Sweden at the Battle of Poltava (1709), he extended Russia's boundaries to the west. Catherine the Great (1762-96) continued Peter's westernization program and also expanded Russian territory, acquiring the Crimea and part of Poland. During the reign of Alexander I (1801-25), Napoleon's attempt to subdue Russia was defeated (1812-13), and new territory was gained, including Finland (1809) and Bessarabia (1812). Alexander was the originator of the Holy Alliance which crushed for a time Europe's rising liberal movement.

Alexander II (1855-81), pushed Russia's borders to the Pacific and into central Asia. Serfdom was abolished in 1861, but heavy restrictions were imposed on the emancipated class. Revolutionary strikes

following Russia's defeat in the war with Japan forced Nicholas II (1894-1917) to grant a representative national body (Duma), elected by narrowly limited suffrage. It met for the first time in 1906. Nicholas continued in his reactionary course, however, and the overwhelmingly liberal Duma had little or no influence in the government.

World War I demonstrated the corruptness and inefficiency of the tsarist regime, although the call of patriotism held the poorly equipped army together for a time. Disorders broke out in Petrograd (now Leningrad) in March, 1917, and, following the winning over of the Petrograd garrison, the revolution was in full swing. Nicholas was forced to abdicate and was later killed by the revolutionists. A provisional government was formed, composed of both conservative and radical elements. This government, under the successive premierships of Prince Lvov and Alexander Kerensky, a Menshevik or moderate socialist, soon lost ground to the radical or Bolshevik wing of the Socialist Democratic Labor party. Finally, on Nov. 7, 1917, came the Second Revolution, engineered by Nikolai Lenin and Leon Trotsky. The humiliating Treaty of Brest-Litovsk (March 3, 1918) concluded the war with Germany, but civil war and intervention by foreign powers prevented the new Communist government from gaining control of all Russia until 1920. A brief war with Poland occurred in 1920, but it resulted in Russian defeat.

Soviet foreign policy—first featured by friendship with Germany and antagonism toward England and France and then, after Hitler's rise to power in 1933, by participation in the League of Nations and an anti-Fascist program—took another abrupt turn on Aug. 24, 1939, with the signing of a Soviet-German nonaggression pact. Territory seized from Poland (Sept. 1939) became part of the Ukrainian and Byelorussian S.S.R.'s; that secured from Finland at the conclusion of the Finnish war of 1939-40, part of the Karelian S.S.R. set up March 31, 1940; that secured from Rumania (Bessarabia and northern Bukovina), part of the Moldavian S.S.R. set up Aug. 2, 1940; and finally the formerly independent states of Estonia, Latvia, and Lithuania, occupied in June 1940, were absorbed into the U.S.S.R. as the 14th, 15th, and 16th Soviet Republics. The latter annexations have not been recognized by the United States, Britain, and the majority of other nations.

Immediately following their attack (June 22, 1941), the Germans seized approximately 500,000 square miles of Soviet territory, but Soviet forces resisted stubbornly, aided by increasing amounts of matériel from the United States and Brit-

ain. The great Soviet counteroffensive in the Stalingrad area (Nov., 1942-Feb., 1943) marked the turning point. Soviet troops gradually pushed the Nazis back and unleashed their final great offensive on Jan. 12, 1945. The nonaggression pact with Japan (1941) was denounced in April, 1945, and, following the declaration of war on Japan (Aug. 8, 1945), Soviet Far Eastern forces quickly occupied Manchuria, Karafuto, and the Kuriles.

(For an analysis of subsequent developments see *World Politics* section.)

Postwar territorial acquisitions include the Carpatho-Ukraine (12,617 sq. mi.) obtained from Czechoslovakia June 29, 1945, incorporated into the Ukrainian S.S.R.; the Republic of Tannu Tuva in central Asia (64,000 sq. mi.) incorporated early in 1945 into the R.S.F.S.R.; Karafuto or southern Sakhalin (13,935 sq. mi.) and the Kurile Islands (3,944 sq. mi.), occupied by Soviet troops in Aug., 1945, and incorporated into the R.S.F.S.R.; the northern part of eastern Prussia (about 7,000 sq. mi.), placed under *de facto* Soviet administration at the Potsdam Conference and incorporated into R.S.F.S.R.; the Petsamo district of Finland, obtained *de jure* under the 1947 treaty and incorporated into the R.S.F.S.R.; and Poland east of the Curzon Line (69,860 sq. mi.), under terms of the Soviet-Polish treaty of Aug. 16, 1945, incorporated into the Ukrainian and Byelorussian S.S.R.'s.

Details concerning the constituent republics of the U.S.S.R. are as follows:

Republic and capital	Area sq. mi.	Population Est. April 1956* (thousands)
Russian S.F.S.R. (Moscow)	6,592,443†	113,200†
Ukraine (Kiev)	232,618	40,600
Kazakhstan (Alma Alta)	1,063,242	8,500
Byelorussia (Minsk)	80,154	8,000
Uzbekistan (Tash- kent)	157,336	7,300
Georgia (Tbilisi)	29,488	4,000
Azerbaijan (Baku)	33,089	3,400
Lithuania (Vilnius)	25,174	2,700
Moldavia (Chisinau)	13,050	2,700
Latvia (Riga)	24,903	2,000
Kirghizia (Frunze)	76,023	1,900
Tadzhikistan (Sta- linabad)	55,058	1,800
Armenia (Erivan)	11,506	1,600
Turkmenistan (Ash- khabad)	187,181	1,400
Estonia (Tallinn)	17,413	1,100

* Official estimate of the Central Statistical Board of the Soviet Council of Ministers. † Including the Karelo-Finnish S.S.R., incorporated into the R.S.F.S.R. in July 1956.

COMMUNIST PARTY. (For an assessment of the Communist Party and the structure of government see *World Politics* section.)

DEFENSE. The land, air, and sea forces

are under control of the Defense Ministry. Military service is compulsory; the initial training period varies from two to five years. The armed forces, which were estimated to have reached a peak of more than 15,000,000 men in 1945, numbered between 4,350,000 and 4,600,000 men in 1956, and were believed to have been reduced to approximately 3,400,000 by 1957. The strength of the army, including MVD and MGN troops (secret police organizations with paramilitary formations), was between 2,800,000 and 3,200,000 in 1956. The air force had between 750,000 and 800,000 men and 20,000 planes, including advanced models of jet fighters and bombers. The navy had between 600,000 and 750,000 men.

Information about the Red fleet is as vague as that about the army and air force. In Dec., 1956, it was believed to have three battleships, thirty-two cruisers, 150 destroyers, 250 frigates and escort vessels, 475 submarines, and many coastal and river craft, patrol vessels, minesweepers, and various other small ancillary craft. Naval construction was emphasized in postwar five-year plans.

ECONOMIC CONDITIONS. *Agriculture.* Formerly an agricultural country, the Soviet Union has grown since about 1920 into an industrial-agricultural power, with agriculture making great advances at the same time.

The Union's diverse climate permits the growing of the most varied crops.

The progress of the livestock industry during the fifth Five-Year Plan was particularly disappointing.

Industry. Almost all industry in the Soviet Union is carried on by organizations owned or controlled by the state. Industrialization of the country has been a major objective of its leaders. Completion of the first two Five-Year Plans (1928-32, 1933-37) and of most of the third (1937-42) saw a great increase in the volume and versatility of Soviet industry.

The large-scale evacuation of plants to the East and the construction of new plants there during World War II, coupled with the eastward orientation of industry prior to the war, has shifted the balance to newly developed regions in Central Asia and Siberia from the Moscow-Leningrad area and the Ukraine. The new regions are now the center of Soviet industrial power accounting for almost all magnesium and aluminum production, and more than 60 per cent of the pig iron and steel production. The production of consumers' goods continues to be subordinate to the production of heavy capital equipment.

Large increases in production were reported under the fourth and fifth Five-Year Plans and further increases were projected under the sixth Five-Year Plan.

Foreign Trade. Soviet foreign trade is a state monopoly, and foreign goods are purchased in accordance with an over-all plan conducted under the supervision of the Foreign Trade Ministry.

No complete trade statistics have been issued since 1938.

According to official reports, the main exports in 1955 were machines and equipment 22.1%; metals 15.2%; cotton 11.3%; grain 10.3%; and petroleum and products 6.4%; chief imports, machines and equipment 33.0%; textile raw materials 6.0%; metals 5.3%; ores and concentrates 4.2%; and meat 4.2%.

NATURAL FEATURES AND RESOURCES.

The U.S.S.R. is the largest unbroken political unit in the world, occupying more than one-seventh of the land surface of the globe. The greater part of its territory is a vast plain stretching from eastern Europe to the Pacific Ocean. This plain, relieved only occasionally by low mountain ranges (notably the Urals), consists of three zones running east and west: (1) the frozen marshy tundra of the Arctic; (2) the more temperate forest belt; and (3) the steppes or prairies to the south, which in southern Soviet Asia become sandy deserts. The topography is more varied in the South, particularly in the Caucasus between the Caspian and Black Seas, and in the Tien-Pamir mountain system bordering Afghanistan, Sinkiang, and Mongolia. Mountains (Stanovoi and Kolyma) and great rivers (Amur, Yenisei, Lena) also break up the sweep of the plain in Siberia.

Minerals. The U.S.S.R. is probably the richest country in the world in mineral resources, containing deposits of almost every known mineral. It ranks among the top producing nations in coal, chromite, iron ore, petroleum, gold, copper, manganese, and other products. The richest mineral region is that of the Ural Mountains, which lacks only good coking coal.

Forests. With a forested area of about 2,500,000,000 acres, the U.S.S.R. possesses a large proportion of the world's timber reserves. Most of the forested area is in Siberia, but there are also valuable stands in the Caucasus. Plans were made late in 1948 for the planting of huge forest belts 60 to 90 mi. wide in the southern steppes to protect fertile food-producing areas from the dry winds of the central Asian and Caspian deserts.

Fisheries and Furs. The rivers, lakes, and surrounding seas (except the Black Sea) are rich in fish. The acquisition of former Japanese fisheries in Karafuto and the Kuriles greatly increased output of the Far Eastern fish industry. Trapping is an important secondary industry, especially in eastern Siberia.

UNITED ARAB REPUBLIC. See Egypt, Syria

UNITED ARAB STATES. See Yemen

Uruguay (Republic)

(República Oriental del Uruguay)

Area: 68,369 square miles.

Population (est. 1956): 2,650,000 (1950: white, 89.1%; others, 10.9%).

Density per square mile: 41.0.

President of Federal Council (1957-58): Arturo Lezama.

Principal cities (est. 1954): Montevideo, 810,969 (capital); Mercedes, 44,900 (farming center); Salto, 44,900 (cattle raising); Paysandú, 44,000 (meat packing).

Monetary unit: Peso.

Language: Spanish.

Religion: Roman Catholic.

HISTORY. Juan Diaz de Solís, a Spaniard, discovered Uruguay in 1516, but the Portuguese were first to settle it when they founded Colonia in 1680. After a long struggle, Spain wrested the country from Portugal in 1778. Uruguay revolted against Spain in 1811, only to be conquered in 1816-20 by the Portuguese from Brazil. Independence was reasserted with Argentine help in 1825, and the republic was set up in 1830.

GOVERNMENT. Under the 1934 Constitution, as amended in 1951, the executive power is exercised by a Federal Council of nine members, six of the majority and three of the minority party, normally elected for 4-year terms. The presidency of the Council is rotated annually. There is a bicameral Congress composed of a 99-member Chamber of Deputies and a 31-member Senate elected for four years. All literate citizens of Uruguay may vote, including women, who may also sit in congress.

ECONOMIC CONDITIONS. Cattle, sheep, meat, and wool dominate the Uruguayan economy. With nearly 80 per cent of its grassy land devoted to grazing, in 1956 there were 22,954,000 sheep and 7,305,000 cattle. Wool production in 1956 was 53,000 metric tons, clean. With only about 5 per cent of the land cultivated, a third of this grows wheat, the chief crop (1956-57: 750,000 metric tons).

Uruguay slaughters more than two million head of cattle and sheep a year, and meat processing is the largest manufacturing industry. There are many modern plants for chilling or freezing meat, and plants for liquid extract of beef.

In value, wool was the chief export (42%) in 1956, followed by wheat (14%), meat (9%), and hides (6%). Chief cus-

tomers were the Netherlands (24%), the United States (12%), and Brazil (11%); leading suppliers, the United States (16%), Brazil (12%), and Western Germany (7%). Leading imports included machinery, vehicles, gasoline, textiles, and sugar.

NATURAL FEATURES. Uruguay, a low rolling plain in the south and a low plateau in the north, has a 120-mile Atlantic shore line, a 235-mile frontage on the Río de la Plata, and 270 miles on the Uruguay River, its western boundary.

Vatican City State (Stato Città Vaticana)

Area: 108.7 acres.

Population (est. 1952): 947 (Italian, 85%; Swiss and others, 15%).

Ruler: The Supreme Pontiff.

Monetary unit: Lira.

Languages: Latin, Italian.

Religion: Roman Catholic.

The Vatican City State, sovereign and independent, is situated on the Vatican hill on the right bank of the Tiber in northwest Rome. The area has been intimately associated with the history of the Roman Catholic Church since the time of the martyrdom of St. Peter. From it the Pope exercised temporal sway for many centuries over a large part of central Italy; in 1859 the Papal States comprised an area of some 17,000 sq. mi. During the struggle for Italian unification, from 1860 to 1870, most of this area became part of Italy.

By an Italian law of May 13, 1871, the temporal power of the Pope was abrogated, and the territory of the Papacy was confined to the Vatican and Lateran palaces and the Villa of Castel Gandolfo. The Popes consistently refused to recognize this arrangement, and by the Lateran Treaty of Feb. 11, 1929, between the Vatican and the Kingdom of Italy, the exclusive dominion and sovereign jurisdiction of the Holy See over the city of the Vatican was again recognized, thus restoring the Pope's temporal authority over the area. Accompanying the treaty were conventions regulating the position of the Catholic Church in Italy and providing for reimbursement to the Vatican in final settlement of the claims of the Holy See against Italy for the loss of temporal power in 1870-71.

The Supreme Pontiff Pius XII (Eugenio Pacelli), died Oct. 9, 1958. He was born at Rome, March 2, 1876, proclaimed Cardinal in 1929, and elected Pope on March 2, 1939. He was crowned on March 12, 1939.

The Pope has full legal, executive, and judicial powers. Executive power over the area is in the hands of a Governor appointed by the Pope and exclusively responsible to him.

The College of Cardinals is the Pope's chief advisory body, and upon his death the cardinals elect his successor for life. The cardinals themselves are created for life by the Pope. When complete, the College consists of seventy members.

The central administration of the Roman Catholic Church throughout the world is carried on in the Vatican by twelve congregations, three tribunals, and four offices.

In its diplomatic relations with foreign countries, the Vatican is represented by the Papal Secretary of State. In 1956 the Vatican maintained diplomatic relations with forty states through its papal nuncios (ambassadors) and inter-nuncios (ministers). Apostolic Delegates, representatives without accredited rank, are maintained in a number of other countries throughout the world.

The Vatican has its own railway station, postal facilities, coinage, newspaper, radio, and television system. In addition to the Vatican itself, which includes St. Peter's Square, extraterritorial rights are enjoyed in thirteen buildings in the city of Rome outside Vatican City.

Venezuela (Republic) (República de Venezuela)

Area: 352,143 square miles.

Population (est. Dec. 1955): 6,134,000* (mestizo, 65%; white, 20%; Negro, 8%; Indian, 7%).

Density per square mile: 17.0*

President: Admiral Wolfgang Larrazabal.

Principal cities (est. Dec. 31, 1956): Caracas, 749,303 (capital); Maracaibo, 389,723 (oil); Barquisimeto, 164,908 (sugar, coffee, mining); Valencia, 124,376 (farming center).

Monetary unit: Bolívar.

Language: Spanish.

Religion: Roman Catholic.

* Excludes tribal Indians.

HISTORY. Venezuela, a third larger than Texas, is the world's second greatest producer of oil, outranked only by the United States. Simón Bolívar, who led the liberation of much of the continent from Spain, was born in Caracas.

Columbus discovered Venezuela on his third voyage in 1498. A subsequent Spanish explorer, for reasons of his own, gave the country its name, meaning "Little Venice." There were no important settlements until Caracas was founded in 1567. With Bolívar taking part, Venezuela was one of the first South American colonies to revolt against Spain in 1810, but it was not until 1821 that independence was won. Federated at first with Colombia and Ecuador, the country set up a republic in 1830, and then sank for many decades into a condition of revolt, dictatorship, and corruption.

GOVERNMENT. Venezuela comprises twenty states, a federal district and, two territories. Under the 1953 Constitution (Venezuela's 21st) the Congress consists of a 42-member Senate elected by state legislatures and a 104-member Chamber of Deputies elected directly. The President is elected by popular vote for five years.

ECONOMIC CONDITIONS. Agricultural production has failed to keep pace with the food needs of the rapidly increasing population. The principal crop is coffee, grown on 60,000 plantations on the slopes of the coastal mountains. Stock raising, which is centered east of Lake Maracaibo, and on the llanos, is important.

There are few industries, the most important being woodworking, cotton textiles, and tobacco products. Electric power is plentiful. In 1956, 228,260,000 bbl. of crude petroleum were refined. Venezuela's first steel plant is under construction near Puerto Ordaz.

Oil, most of which is found on the northwest shore of Lake Maracaibo, is by far the dominant factor in the economy. It accounts for 95 per cent of exports, gives the country a big foreign trade balance and a treasury surplus.

In 1956 the United States supplied over 59% of the imports, which included for the most part machinery and equipment, metals and manufactures, foodstuffs, beverages, and textiles. In addition to petroleum and products (93%), chief exports in 1956 were iron ore, coffee and, cacao. Most of the crude oil goes to the United States via the islands of Curaçao and Aruba, refining centers in the West Indies.

NATURAL FEATURES AND RESOURCES. An unusual setting of mountain systems breaks Venezuela into four distinct areas: (1) the Maracaibo lowlands; (2) the mountainous region in the north and northwest; (3) the Orinoco basin with the llanos (vast grass-covered plains) on its northern border and great forest areas in the south and southeast; (4) the Guiana highland, south of the Orinoco, accounting for nearly half the national territory. About 80 per cent of Venezuela is drained by the Orinoco and its 400 tributaries.

Oil production in 1956 was 889,180,000 barrels. Venezuela has gold mines in the region southwest of the Orinoco delta. A subsidiary of Bethlehem Steel Corp. began the mining of iron ore in the El Pao area south of the Orinoco river in 1950, while a U. S. Steel Corp. subsidiary is exploiting a rich "iron mountain" south of Ciudad Bolívar on the Orinoco.

Republic of Vietnam

Area: 65,726 square miles.
Population (est. 1956): 12,366,000.
Density per square mile: 188.1.
President: Ngo Dinh Diem.

Principal cities (est. 1956): Saigon-Cholon, 1,794,360 (capital, chief port); Tourane, 100,978 (port, naval base); Huế, 90,682 (rice, sawmills).

Monetary unit: Piastre.*

Languages: Annamese, French.

Religions: Buddhist, Christian.

* 1 piastre = 10 French metropolitan francs.

The young republic of Vietnam comprises the southern part of the former state of Việt-Nam and includes all of the former state of Cochín-China and the southern part of Annam. It is a member of the French Union, but its new status has not been fully defined.

About 90% of the people derive their livelihood from agriculture, most of them being employed in growing rice and rubber. The Mekong delta is one of the leading rice-exporting areas in the world. Production in 1956 included rice, 3,514,620 metric tons; rubber, 70,235 tons. Other crops are tea, coffee, maize, tobacco, kapok, and pepper. Water buffalo are used chiefly for draft purposes.

Factories, centered in Saigon-Cholon, are small and process goods for local consumption and agricultural and forest products for export. Most important are the rice and sawmills.

In 1956 the chief export was rubber (86%). Leading customers were France (67%), the United States (19%), and Cambodia (4%); leading suppliers, the United States (28%), Japan (26%), and France (23%).

Mineral resources are limited. Coal is most important; some deposits of phosphates and gold exist.

Democratic Republic of Vietnam

Area: 63,360 square miles.

Population (est. 1955): 12,500,000.

Density per square mile: 197.3.

President: Ho Chi-minh.

Premier: Pham Van-dong.

Principal cities (est. 1953): Hanoi, 297,900 (capital); Haiphong, 188,600 (chief port).

Monetary unit: Dong.

Languages: Annamese, Chinese, French.

Religions: Buddhist, Christian.

The Democratic Republic of Vietnam comprises the northern part of the former state of Việt-Nam and includes all of the former state of Tongking and the northern part of Annam. It is no longer a part of the French Union. The government of the republic is organized along typical communist lines.

The economy is based on agriculture and mining. The chief crop is rice, grown chiefly in the Red River delta and supplying in most years the requirements of the population. Other crops are maize, arrow-

root, sugar cane, tea, coffee, tobacco, and sweet potatoes. Industry is not highly developed. There are important coal mines in the Quangyen basin near Haiphong. Tin, limestone, and gold also are produced. A railway runs south from Hanoi along the coast and in the north connects through Langson with the railway network of Communist China.

Yemen (Kingdom)

Federated in March, 1958, with the United Arab Republic (Egypt and Syria) to form the United Arab States.

Area: c. 75,290 square miles.
Population (est. 1953): 4,500,000.
Density per square mile: c. 59.8.
King: Ahmad ibn Yahya Hamid ed-Din.
Premier: Seif ul-Islam el-Badr.
Principal cities (est.): Sana, 50,000 (capital); Hodeida, 30,000 (chief port); Taiz, 12,000 (seat of government).
Monetary unit: Riyal.
Language: Arabic.
Religion: Moslem.

The history of Yemen dates back to the Minaean kingdom (1,200-650 B.C.). It accepted Islam in 628 A.D. and in the tenth century came under the control of the Rassite dynasty of the Zaidi sect, which still rules. The Turks occupied the area from 1538 to 1630 and from 1849 to 1918. Its sovereign status was confirmed by treaties signed with Saudi Arabia and Britain in 1934. Yemen was admitted to U. N. membership in 1947.

Yemen is an absolute monarchy. The present ruler came to the throne in 1948, after insurgents murdered his father. Nearly all the population of the country is settled and nomadism prevails only in the lowlands.

Unlike most of Arabia, the Yemeni highlands are well adapted to agriculture; they produce grain, fruit, vegetables, and Mocha coffee. Stock raising flourishes, particularly in the lowlands. Exports include coffee and hides.

Yugoslavia (Republic)

(Federaciona Narodna Republika Jugoslavija)

Area: 98,700 square miles.
Population (est. 1956): 17,886,000 (1953: Serbian, 41.7%; Croat, 23.5%; Slovene, 8.8%; Macedonian, 5.3%; Albanian, 4.4%; others, 16.3%).
Density per square mile: 180.3.
President: Josip Broz (Tito).
Principal cities (census 1953): Belgrade (Beograd), 469,988 (capital); Zagreb, 350,452 (Croat commercial center); Ljubljana, 138,211 (Slovenian industrial center); Sarajevo, 135,657 (Bosnian manufacturing

center); Skopje, 121,551 (capital, Macedonia); Subotica, 115,402 (wheat).

Monetary unit: Dinar.

Languages: Serbo-Croat, Slovene, Macedonian (all official).

Religions (est. 1952): Greek Orthodox, 49.6%; Roman Catholic, 36.8%; Moslem, 12.5%; others, 1.1%.

HISTORY AND GOVERNMENT. Yugoslavia, fronting on the Adriatic Sea opposite Italy, was formed in 1919 out of some of Europe's oldest trouble spots in the Balkans. After a brief and unstable history of twenty-five years, it emerged from World War II as a Russian satellite.

The 1919 components of Yugoslavia were the old kingdoms of Serbia and Montenegro, and the following: Bosnia-Herzegovina, formerly administered jointly by Austria and Hungary; Croatia-Slavonia, which had had limited autonomy under Hungary; and Slovenia and Dalmatia, formerly administered by Austria.

Alexander I, son of King Peter of Serbia, became the first King of the new country on Aug. 16, 1921. His reign was a rocky one because the Croats, under Dr. Stephen Radić, unceasingly sought autonomy. Finally, a Croat assassinated Alexander in Marseilles, France, in 1934, and since his son Peter was a minor, a regency was set up under Prince Paul, the new King's uncle.

After pursuing an increasingly pro-Axis policy under the regent, Yugoslavia signed the Axis Pact on March 25, 1941; this caused the overthrow of the government two days later. On April 6 the country was invaded by the Nazis and was speedily occupied. While the King and government fled to the Near East and later to London, Yugoslavia was divided into German, Italian, Hungarian, and Bulgarian occupation zones.

Inside Yugoslavia, the Axis occupation was fought by two guerrilla armies—the Chetniks under Draža Mihailović, who supported the monarchy; and the Partisans under Marshal Tito (Josip Broz), who leaned toward Russia. These two groups fought not only the Germans, but also each other. In November, 1943, Tito established an Executive National Committee of Liberation to act as a provisional government, thus repudiating King Peter.

In the elections of Nov. 11, 1945, Tito's forces won overwhelmingly, partly because the monarchist factions boycotted the balloting. Convening on Nov. 29, the new Assembly abolished the monarchy and set up the Federal People's Republic of Yugoslavia. Tito was Prime Minister, and his government won recognition from Britain and the United States.

The Tito government embarked upon an internal policy of ruthless oppression and elimination of opposition factions, includ-

ing the summary trial and execution of Mikhailovic in 1946.

Soviet support enabled the nation to secure most of Italian Istria under the 1947 peace treaty, but efforts to secure sovereignty over the key port of Trieste were unsuccessful. Zone B of the former free territory of Trieste was, however, transferred to Yugoslavia in Oct., 1954.

Tito was elected President under the new Constitution on Jan. 14, 1953.

(For Tito's 1948 break with the U.S.S.R. and subsequent events, see Satellite Europe and Yugoslavia in *World Politics* section.)

Yugoslavia is a federal republic composed of six units—Serbia (which includes the autonomous province of Vojvodina and the autonomous region of Kosovo-Metohija), Croatia, Slovenia, Bosnia-Herzegovina, Macedonia, and Montenegro. Actual administration is carried on by five State Secretaries responsible to an Executive Council. Actual control of the country remains with the Yugoslav Communist Party.

ECONOMIC CONDITIONS. Agriculture occupies about 80 per cent of the population. The principal crops are corn, wheat, sugar beets, hemp, hops, opium (in Macedonia), and tobacco (chiefly in Macedonia and Herzegovina). Excellent wines are produced in Dalmatia and Herzegovina and along the Danube.

In 1956 there were 5,220,000 cattle, 11,518,000 sheep, and 4,699,000 hogs.

Manufactures are limited for the most part to consumers' goods. Legislation passed Dec. 5, 1946, nationalized all private economic enterprises, public works and industries in forty-two branches of the national economy including mining, metallurgy, and all industries which process natural products.

Leading customers in 1956 were western Germany (15%), Italy (14%), and the U.S.S.R. (13%); leading suppliers, the United States (27%), the U.S.S.R. (15%), and western Germany (10%). Chief exports in 1955 were sawn timber (13%), tobacco (6%), and pulpwood (3%).

NATURAL FEATURES AND RESOURCES. About half of Yugoslavia is mountainous. In the north, the Dinaric Alps rise abruptly from the sea and progress eastward as a barren limestone plateau called the Karst. Montenegro is a jumbled mass of mountains, containing also some grassy slopes and fertile river valleys. Southern Serbia, too, is mountainous. A rich plain in the north and northwest, drained by the Danube, is the most fertile area of the country. The Danube and tributaries—the Drava, Sava, and Morava—in the northeast are the principal rivers.

Yugoslavia is the Balkans' principal mineral producer.

Principal Deserts of the World

Desert	Location	Approximate size	Appx. elevation, ft.
Atacama.....	North Chile.....	400 mi. long.....	7,000-13,500
Black Rock.....	Northwest Nevada.....	About 1,000 sq. mi.....	2,000-5,000
Colorado.....	Southeast California from San Geronio Pass to Gulf of California.....	200 mi. long and a maximum width of 50 mi.....	Few feet above to 250 below sea level
Dasht-i-Kavir.....	Southeast of Caspian Sea in Iran.....	.....	2,000
Dasht-i-Lut.....	Northeast of Kerman in Iran.....	.....	1,000
Gobi (Shamo).....	Covers most of Mongolia.....	300,000 sq. mi.....	3,000-5,000
Great Arabian.....	Most of Arabia.....	1,500 mi. long.....	.....
Syrian (El Hamad).....	North of 30° N. Latitude.....	.....	1,850
Nefud (Red Desert).....	South of Jauf.....	400 mi. by average of 200 mi.....	3,000
Dahna.....	Southeast of Nefud.....	400 by 30 mi.....	.....
Rub' al Khali.....	South portion of Nejd.....	.....	.....
Great Australian.....	Western portion of Australia.....	About one-half the continent.....	600-1,000
Great Salt Lake.....	West of Great Salt Lake to Nevada-Utah line.....	80 by 50 mi.....	4,500
Kalahari.....	South Africa between the Orange and Zambezi Rivers.....	400 by 600 mi., or about 120,000 sq. mi.....	Over 3,000
Kara Kum (Desert of Khiva).....	Southwest Turkestan south of Lake Aral.....	110,000 sq. mi.....	.....
Kizil Kum.....	Central Turkestan southeast of Lake Aral.....	370 by 220 mi., or about 70,000 sq. mi.....	160 near Lake Aral to 2,000 in southeast
Libyan.....	Eastern Sahara west of Nile.....	More than 500,000 sq. mi.....	.....
Mohave.....	North of Colorado Desert and south of Death Valley in SE Calif.....	15,000 sq. mi.....	2,000
Nubian.....	From Red Sea to great west bend of the Nile.....	.....	2,500
Painted Desert.....	Northeast Arizona.....	75 mi. wide.....	High plateau 5,000
Sahara.....	Northern states of Africa to about 15° N. Lat. and from Red Sea to the Atlantic Ocean.....	3,200 mi. greatest length along 20° N. Lat.; Area over 3,500,000 sq. mi.....	440 below sea level to 11,000 above, ave. elevation, 1,400-1,600
Takla Makan.....	S. Central Sinkiang in Tarim Basin.....	700 mi. long.....	.....
Thar (Indian).....	Chiefly Rajputana, India.....	About 300 mi. by 380 mi.....	About 500

Explorations and Discoveries

Africa

Country or place	Event	Explorer or discoverer	Date
Sierra Leone	Visited	Hanno, Carthaginian seaman	c. 520 B.C.
Congo River	Mouth discovered	Cão, Portuguese navigator	c. A.D. 1484
Cape of Good Hope	Doubled	Bartholomeu Diaz, Portuguese navigator	1488
Gambia River	Explored	Mungo Park, Scottish explorer	1795
Sahara Desert	Crossed	Denham and Clapperton, English explorers	1822-23
Zambezi River	Discovered	Livingstone, Scottish explorer	1851
Sudan	Explored	Barth, German explorer	1852-55
Victoria Falls	Discovered	Livingstone	1855
Lake Tanganyika	Discovered	Burton and Speke, British explorers	1858
Congo River	Traced	Stanley, British explorer	1877

Asia

Punjab (India)	Visited	Alexander the Great	327 B.C.
China	Visited	Marco Polo, Italian traveler	c. A.D. 1272
Tibet	Visited	Odoric, Italian monk	c. 1325
Southern China	Explored	Conti, Italian adventurer	c. 1440
India	Visited by Cape route	Vasco da Gama, Portuguese navigator	1498
Japan	Visited	St. Francis Xavier of Spain	1549
Arabia	Explored	Niebuhr, German explorer	1762
China	Explored	Richtshofen, German scientist	1868
Mongolia	Explored	Przhevalsky, Russian explorer	1870-73
Central Asia	Explored	Hedin, Swedish scientist	1890-1908

Europe

Shetland Islands	Visited	Pytheas of Massilia (Marseille)	c. 325 B.C.
North Cape	Rounded	Ottar, Norwegian explorer	c. A.D. 870
Iceland	Colonized	Norwegian noblemen	c. 890-900

North America

Greenland	Colonized	Eric the Red, Norwegian navigator	c. A.D. 985
Labrador; Nova Scotia (?)	Discovered	Lelf Ericsson, Norse explorer	1000
West Indies	Discovered	Christopher Columbus, Italian navigator	1492
North America	Coast discovered	John Cabot, for British	1497
Pacific Ocean	Discovered	Balboa, Spanish explorer	1513
Florida	Explored	Ponce de León, Spanish explorer	1513
Mexico	Conquered	Cortez, Spanish adventurer	1519
St. Lawrence River	Discovered	Cartier, French navigator	1534
Southwest U. S.	Explored	Coronado, Spanish explorer	1540-42
Colorado River	Discovered	Alarcón, Spanish explorer	1540
Mississippi River	Discovered	Hernando de Soto, Spanish explorer	1541
Frobisher Bay	Discovered	Frobisher, English seaman	1576
Maine Coast	Explored	Champlain, French explorer	1604
Jamestown, Va.	Settled	Smith, English colonist	1607
Hudson River	Explored	Hudson, English navigator	1609
Hudson Bay (Canada)	Discovered	Hudson	1610
Baffin Bay	Discovered	Baffin, English navigator	1616
Lake Michigan	Navigated	Nicolet, French explorer	1634
Arkansas River	Discovered	Marquette and Joliet, French explorers	1673
Mississippi River	Explored	LaSalle, French explorer	1682
Bering Strait	Discovered	Bering, Danish explorer	1728
Alaskan Coast	Sighted	Gvosdeff, Russian sailor	1731
Mackenzie River (Canada)	Discovered	Mackenzie, Scottish-Canadian explorer	1789
Northwest U. S.	Explored	Lewis and Clark	1804-06
Northeast Passage (Arctic Ocean)	Navigated	Nordenskjöld, Swedish explorer	1879
Greenland	Explored	Peary, American explorer	1892
Northwest Passage	Navigated	Amundsen, Norwegian explorer	1906

South America

Country or place	Event	Explorer or discoverer	Date
Continent	Visited	Columbus, Italian navigator	1498
Brazil	Discovered	Cabral, Portuguese explorer	1500
Peru	Conquered	Pizarro, Spanish explorer	1532-33
Amazon River	Explored	Orellana, Spanish explorer	1541
Cape Horn	Discovered	Schouten, Dutch navigator	1615

Oceania

New Guinea	Visited	Menezes, Portuguese explorer	1526
Australia	Visited	Jansz, Dutch explorer	1606
Tasmania	Visited	Tasman, Dutch navigator	1642
Australia	Explored	Sturt, English explorer	1828
Australia	Explored	Burke and Wills, Australian explorers	1861

Arctic, Antarctic and Miscellaneous

Ocean exploration	Expedition	Magellan's ships circumnavigated the globe	1519-22
Spitsbergen (Arctic Europe)	Visited	Barents, Dutch navigator	1596
Antarctic Circle	Crossed	Cook, English navigator	1773
Antarctica	Discovered	Palmer, U S. explorer (archipelago) and Bellingshausen, Russian navigator (mainland)	1820-21
Antarctica	Explored	Wilkes, American explorer	1840
North Pole	Discovered	Peary, American explorer	1909
South Pole	Discovered	Amundsen, Norwegian explorer	1911

The Seven Wonders of the World

THE PYRAMIDS OF EGYPT

A group of three pyramids, *Khufu*, *Khafra* and *Menkaura* at Giza, outside modern Cairo, is often called the first wonder of the world; it is also the oldest and only surviving "wonder." The largest pyramid, built by Khufu (Cheops), had an original estimated height of 482 ft. (now approximately 450 ft.). The exact date of its construction is unknown and has been estimated as early as 4700 B.C. but is probably closer to 2900 B.C.

HANGING GARDENS OF BABYLON

Often listed as the second wonder, these gardens were supposedly built by Nebuchadnezzar about 600 B.C. to please his queen, Amuhia. They are also associated with the mythical Assyrian Queen, Semiramis. Archeologists surmise that the gardens were laid out atop a vaulted building, with provisions for raising water. The terraces were said to rise from 75 to 300 ft.

The Walls of Babylon, also built by Nebuchadnezzar, are sometimes referred to as the second (or the seventh) wonder instead of the Hanging Gardens.

STATUE OF ZEUS (JUPITER)
AT OLYMPIA

The work of Phidias (5th century B.C.), this colossal figure in gold and ivory was reputedly 40 ft. high. All trace of it is lost, except for reproductions on coins.

TEMPLE OF ARTEMIS (DIANA)
AT EPHEBUS

A beautiful structure, begun about 350 B.C. in honor of a non-Hellenic goddess who later became identified with the Greek goddess of the same name. The temple, with Ionic columns 60 feet high, was destroyed by invading Goths A.D. 262.

MAUSOLEUM AT HALICARNASSUS

This famous monument was erected by Queen Artemisia in memory of her husband, King Mausolus of Caria in Asia Minor, who died in 353 B.C. Some remains of the structure are in the British Museum. This shrine is the source of the modern word "mausoleum."

COLOSSUS AT RHODES

This bronze statue of Helios (Apollo), about 105 ft. high, was the work of the sculptor Chares, who reputedly labored for 12 years before completing it in 280 B.C. It was destroyed during an earthquake in 224 B.C.

PHAROS OF ALEXANDRIA

The seventh wonder was the Pharos (lighthouse) of Alexandria, built by Sosstratus of Cnidus during the 3rd century B.C. on the island of Pharos off the coast of Egypt. It was destroyed by an earthquake in the 13th century.

Population, Land Areas of the World and World Elevations

Area	Estimated population, in thousands, 1956	Approximate area, in thousands of sq. mi.	Per cent of total land area	Population density per sq. mi.	Highest	Elevation, feet	Lowest	Dimensions, miles East-West North-South
WORLD	2,737,000	58,333	100.0	46.9	Mt. Everest, Asia, 29,028	Dead Sea, Asia, below sea level	24,902	24,860
ASIA, excluding Asiatic U.S.S.R.; including Philippines and Indonesia	1,514,000	10,599	18.1	142.8	Mt. Everest, Tibet-Nepal, 29,028	Dead Sea, Palestine-Jordan, 1,290 below sea level	5,400*	5,300*
AFRICA	220,000	11,684	20.0	18.8	Mt. Kilimanjaro, Tanganyika, 19,565	Qattara Depression, Egypt, 440 below sea level	4,800	5,000
NORTH AMERICA	246,000	9,355	16.0	26.3	Mt. McKinley, Alaska, 20,300	Death Valley, Calif., 275 below sea level	3,200	4,000
SOUTH AMERICA	129,000	6,899	11.8	18.7	Mt. Aconcagua, Argentina, 22,835	Sea level	3,200	4,600
ANTARCTICA	Uninhabited	6,000	10.3	....	Mt. Thorvald Nilson, 15,400	Sea level	3,300†	2,400†
EUROPE, including Iceland; excluding European U.S.S.R.	412,000	1,903	3.3	216.5	Mt. Blanc, France, 15,781	Sea level	2,400	1,900
AUSTRALIA	9,428	2,974	5.1	3.2	Mt. Kosciusko, 7,328	Lake Eyre, 38 below sea level	2,400	1,900
OCEANIA, incl. New Zealand and British, U. S., French and Australian territories, possessions, etc.	5,672	330	.6	17.2	Mauna Kea, Hawaii, 13,784	Sea level		
U.S.S.R.	200,200	8,603	14.8	23.3	Mt. Pobedy, 24,409	Caspian Sea, 86 below sea level	5,000	2,500

* Including Asiatic U.S.S.R.

† Including European U.S.S.R.

HIGH POPULATION DENSITIES (per square mile)

	Japan	Germany (East)	Korea	
Monaco	34,613.6	630.4	398.7	335.4
Netherlands	877.8	547.1	368.4	318.3
Maldives Islands	773.9	534.2	361.1	312.9
Belgium	759.9	415.5	352.5	311.7
				Haiti

Representative Mountain Peaks of the World

Mountain peak	Range	Location	Height, feet
Everest	Himalayas	Tibet-Nepal	29,028
Godwin Austen (K2)	Karakoram	India	28,250
Kanchenjunga	Himalayas	Nepal	28,140
Makalu	Himalayas	Tibet-Nepal	27,790
Dhaulagiri	Himalayas	Nepal	26,795
Gurla Mandhata	Himalayas	Tibet	25,355
Tirich Mir	Hindu Kush	Pakistan	25,230
Muztagh Ata (K5)	Pamirs	Sinkiang	24,388
Muztagh	Kunlun	Sinkiang	23,890
Aconcagua	Andes	Argentina	22,835
Dos Conos	Andes	Argentina	22,507
Ojos del Salado	Andes	Argentina-Chile	22,408
Huascarán	Andes	Peru	22,205
Llullaillaco	Andes	Argentina-Chile	22,148
Kailas	Himalayas	Tibet	22,028
Mercedario	Andes	Argentina	21,883
Tupungato	Andes	Argentina-Chile	21,489
Sajama	Andes	Bolivia	21,391
Chimborazo	Andes	Ecuador	20,557
McKinley	Alaska	Alaska	20,300
Logan	St. Elias	Canada (Yukon Territory)	19,850
Kilimanjaro	.....	Tanganyika	19,565
Cotopaxi	Andes	Ecuador	19,344
Cayambe	Andes	Ecuador	19,170
Misti	Andes	Peru	19,167
Orizaba (Citlaltepetl)	Sierra Madre Oriental	Mexico	18,696
Elbrus	Caucasus	U.S.S.R.	18,468
St. Elias	St. Elias	Alaska-Canada	18,008
Vilcanota	Andes	Peru	17,998
Popocatepetl	Cordillera de Anáhuac	Mexico	17,883
Cerro de Cuz	Andes	Bolivia	17,828
Ixtaccihuatl	Cordillera de Anáhuac	Mexico	17,338
Tolima	Andes	Colombia	17,109
Dikh-Tau	Caucasus	U.S.S.R.	17,054
Kenya	.....	Kenya	17,040
Ruvenzori	Ruvenzori	Belgian Congo-Uganda	16,795
Kuzbek	Caucasus	U.S.S.R.	16,545
Bona	Wrangell	Alaska	16,420
Klyuchevskaya	Kamchatka	U.S.S.R.	15,912
Savalan	Elburz	Iran	15,784
Blanc	Alps	France	15,781
Lister	.....	Antarctica	15,384
Fairweather	St. Elias	Alaska	15,287
Dashan	Simen	Ethiopia	15,158
Markham	.....	Antarctica	15,102
Matterhorn	Alps	Switzerland-Italy	14,780
Whitney	Sierra Nevada	California	14,495
Elbert	Rockies	Colorado	14,431
Massive	Rockies	Colorado	14,418
Rainier	Cascades	Washington	14,408
Longs	Rockies	Colorado	14,255
Colima	Sierra Madre Occidental	Mexico	14,239
Shasta	Sierra Nevada	California	14,161
Pikes Peak	Rockies	Colorado	14,110
Finsteraarhorn	Alps	Switzerland	14,026
Gannett Peak	Rockies	Wyoming	13,785
Mauna Loa	.....	Hawaii	13,680
Jungfrau	Alps	Switzerland	13,667
Cameroon	.....	British Cameroons	13,353
Erebus	.....	Antarctica	13,202
Robson	Rockies	British Columbia	12,972
Fujiyama (Fujisan)	.....	Japan	12,385
Cook	Southern Alps	South Island, New Zealand	12,349
Hood	Cascades	Oregon	11,245

Large Islands of the World

Island and status	Location	Area, sq. mi.
GREENLAND (Danish territory)	North Atlantic	839,782
NEW GUINEA (Under Dutch crown, west part; U. N. trust territory under Australian administration, northeast part; Australian territory, southeast part)	Southwest Pacific	312,329
BORNEO (United States of Indonesia, south part; British protectorate and colonies, north part)	South China Sea	290,012
MADAGASCAR (French overseas territory)	Off southeast coast of Africa	227,737
BAFFIN (Canada, Northwest Territories)	Arctic	201,600
SUMATRA (United States of Indonesia)	Northeast Indian Ocean	163,145
HONSHU (Japanese home island)	Sea of Japan—Pacific	91,278
GREAT BRITAIN (Eng., Scotland, Wales)	Off coast of northwest Europe	88,140
VICTORIA (Canada, Northwest Territories)	Arctic	80,450
ELLESMERE (Canada, Northwest Territories)	Arctic Ocean	75,024
CELEBES (United States of Indonesia)	Southwest Pacific	69,255
SOUTH ISLAND, NEW ZEALAND	South Pacific	58,093
JAVA (United States of Indonesia)	Northeast Indian Ocean	48,504
NORTH ISLAND, NEW ZEALAND	South Pacific	44,281
NEWFOUNDLAND (Canadian province)	North Atlantic	42,734
CUBA (Republic)	Caribbean Sea	42,350
LUZON	Philippine Islands	40,814
ICELAND (Republic)	North Atlantic	39,688
MINDANAO	Philippine Islands	36,537
HOKKAIDO (Japanese home island)	Sea of Japan—Pacific	34,084
IRELAND (Ireland, republic, south part; Northern Ireland, part of United Kingdom)	West of Great Britain	31,840
HISPANIOLA (Dominican Republic, east part; Haitian republic, west part)	Caribbean Sea	30,075
TASMANIA (Australian state)	South of Australia	26,215
BANKS (Canada, Northwest Territories)	Arctic	25,992
CEYLON (Member of Commonwealth of Nations)	Indian Ocean	25,332
SAKHALIN (U.S.S.R.)	North of Japan	24,560
DEVON (Canada, Northwest Territories)	Arctic	20,484
TIERRA DEL FUEGO (East part to Argentina; west part to Chile)	Southern tip of South America	18,530
MELVILLE (Canada, Northwest Territories)	Arctic	16,164
SOUTHAMPTON (Canada, N. W. Territories)	Hudson Bay	16,114

Oceans and Seas

Name	Area, sq. mi.	Average depth, feet	Greatest known depth, ft.	Place of greatest known depth
Pacific Ocean	63,801,700	14,048	35,400	Off Mindanao
Atlantic Ocean	31,830,800	12,880	30,246	Off Puerto Rico
Indian Ocean	28,358,300	13,002	22,968	Off Sumatra-Java
Arctic Ocean	5,440,200	3,953	17,850	77° 45' N.; 175° W.
Mediterranean Sea*	1,145,100	4,688	15,564	Off Cape Matapan, Greece
Caribbean Sea	1,049,500	6,685	22,788	Off Cayman Islands
South China Sea	895,400	5,419	18,090	West of Luzon
Bering Sea	875,800	4,714	13,422	Off Buldir Island
Gulf of Mexico	618,200	4,874	12,744	Sigsbee Deep
Okhotsk Sea	589,800	2,749	11,400	146° 10' E.; 46° 50' N.
East China Sea	482,300	617	9,126	25° 16' N.; 125° E.
Hudson Bay	475,800	420	600	Near entrance
Sea of Japan	389,100	4,429	12,276	Central Basin
Andaman Sea	308,000	2,854	12,392	Off Car Nicobar Island
North Sea	222,100	308	2,165	Skagerrak
Red Sea	169,100	1,611	7,254	Off Port Sudan
Baltic Sea	163,000	180	1,380	Off Gotland

* Including Black Sea and Sea of Azov. NOTE: For Caspian Sea, see Large Lakes of World elsewhere in this section.

Famous Waterfalls of the World

Waterfall	Location	River	Height, feet
Angel	Venezuela	Tributary of Caroní	3,300
Cuquenán, or Kukenaam	Venezuela-British Guiana	Cuquenán	2,000
Sutherland	South Island, N. Z.	Arthur	1,904
Tugela	Natal, South Africa	Tugela	1,800
Ribbon (Yosemite)	California	Creek, flowing into Yosemite	1,612
Upper Yosemite	California	Yosemite Creek, tributary of Merced	1,430
Gavarnie	Southwestern France	Gave de Pau	1,385
Takkakaw	British Columbia	Tributary of Yoho	1,200
Widow's Tears (Yosemite)	California	Tributary of Merced	1,170
Staubbach	Switzerland	Staubbach (Lauterbrunnen valley)	980
Trummelbach	Switzerland	Trummelbach (Lauterbrunnen)	950
Middle Cascade (Yosemite)	California	Yosemite Creek, tributary of Merced	910
Multnomah	Oregon	Multnomah Creek, tributary of Columbia	850
Vettisfos	Norway	Morkedöla	850
King Edward VII	British Guiana	Courantyne	840
Gersoppa	India	Sharavati	830
Kaiaeteur	British Guiana	Pataro	741
Kalambo	Tanganyika-N. Rhodesia	.....	705
Fairy (Mt. Rainier Park)	Washington	Stevens Creek	700
Maradalsfos	Norway	Stream flowing into Ejkisdalsvand (lake)	650
Skykkjefos	Norway	In Skykkjedal (valley) of Inner Hardanger Flord	650
Terni	Italy	Velino, tributary of Nera	650
Maletsunyane (Le Bihan)	Basutoland, Africa	Maletsunyane	630
Bridal Veil (Yosemite)	California	Bridal Veil Creek, tributary of Merced	620
Nevada (Yosemite)	California	Merced	594
Voringfos	Norway	Bjorela	535
Skjaeggedsfos	Norway	Tyssaa	525
Marina	British Guiana	Tributary of Kuribrong, a tributary of the Pataro	500
Tequendama	Colombia	Bogotá	450
King George's	Cape Province, South Africa	Orange	450
Herval Cascades	Brazil	.....	400
Guayra	Paraguay-Brazil	Paraná	374
Illilouette (Yosemite)	California	Illilouette Creek, tributary of Merced	370
Granite (Mt. Rainier Park)	Washington	Granite Creek	350
Splendor of Sun	Nikko, Japan	.....	350
Victoria	Southern Rhodesia	Zambezi	343
Comet (Mt. Rainier Park)	Washington	Van Trump Creek	320
Lower Yosemite	California	Yosemite Creek	320
Vernal (Yosemite)	California	Merced	317
Virginia	Northwest Territories, Canada	South Nahanni, tributary of Mackenzie	315
Lower Yellowstone	Wyoming	Yellowstone	308
Grand	Labrador, Canada	Hamilton	302
Sluiskin (Mt. Rainier Park)	Washington	Paradise	300
Snoqualmie	Washington	Snoqualmie	270
Seven Falls	Colorado	.....	266
Tallulah	Georgia	Tallulah	251
Shoshone	Idaho	Snake	195
Narada (Mt. Rainier Park)	Washington	Paradise	168
Niagara	New York-Ontario	Niagara	167
Tower (Yellowstone)	Wyoming	Tower Creek, tributary of Yellowstone	132

Principal Rivers of the World

River	Source	Outflow	Approx. length, miles
Nile	Lake Victoria	Mediterranean Sea	4,160
Amazon	Glacier-fed lakes, Peru	Atlantic Ocean	3,900
Missouri-Mississippi	Source of Red Rock Creek, Montana	Gulf of Mexico	3,891
Ob	Altai Mts., U.S.S.R.	Gulf of Ob	3,200
Yangtze Kiang	Tibetan plateau	China Sea	3,100
Amur	Confluence of Shilka (U.S.S.R.) and Argun (Manchuria) Rivers	Tartary Strait	2,900
Congo	Between Lakes Nyasa and Tanganyika	Atlantic Ocean	2,900
Lena	Baikal Mts., U.S.S.R.	Arctic Ocean	2,800
Yenisei	Tannu Ola Mountains, western Mongolia	Arctic Ocean	2,800
Hwang Ho (Yellow)	East part of Kunlun Mts., west China	Gulf of Chihli	2,700
Niger	Border of Sierra Leone	Gulf of Guinea	2,600
Mackenzie	Head of Finlay River, British Columbia	Beaufort Sea (Arctic Ocean)	2,514
Mékong	Tibetan highlands	South China Sea	2,500
Missouri	Actual headwaters Red Rock Creek; beginning of Missouri at conflu- ence of Gallatin, Mad- ison, Jefferson Rivers	Mississippi River	2,475 (confluence) 2,723 (headwaters)
Mississippi	Lake Itasca, Minnesota	Gulf of Mexico	2,470
Paraná	Confluence of Paranaíba and Grande Rivers, southeast Brazil	Río de la Plata (Atlantic Ocean)	2,450
Murray	Australian Alps, New South Wales	Indian (Southern) Ocean	2,310
Irish	Altai Mts., U.S.S.R.	Ob River	2,300
Volga	Valdai plateau, U.S.S.R.	Caspian Sea	2,300
Madeira	Confluence of Gauporé and Maumoré Rivers, Bolivia-Brazil border	Amazon River	2,000
St. Lawrence	St. Louis River, Minn.	Gulf of St. Lawrence	1,900
Purús	Southwest Amazonas, Brazil	Amazon River	1,850
Rio Grande	San Juan Mts., Colorado	Gulf of Mexico	1,800
São Francisco	Southwest Minas Geraes, Brazil	Atlantic Ocean	1,800
Yukon	Junction of Lewes and Pelly, Yukon Territory	Bering Sea	1,800
Salween	Tibet, south of Kunlun Mountains	Gulf of Martaban	1,750
Danube	Black Forest, Germany	Black Sea	1,725
Euphrates	Dumlu Dagħ (moun- tains), Turkey	Persian Gulf	1,700
Indus	Himalayas	Arabian Sea	1,700
Orinoco	Sierra Parima on Vene- zuela-Brazil boundary	Atlantic Ocean	1,700
Tocantins	Near Pyrenopolis, southeast Brazil	Pará River (Atlantic Ocean)	1,700
Brahmaputra	Himalayas	Ganges River (Bay of Bengal)	1,680
Si Kiang	Plateau of Yunnan, southwest China	China Sea	1,650
Nelson	Head of Bow River, west Alberta, Canada	Hudson Bay	1,600
Zambezi	11°21'S.; 24°22'E., North- ern Rhodesia, Africa	Indian Ocean	1,600
Ganges	Himalayas	Bay of Bengal	1,540
Amu Darya (Oxus)	Nicholas Range, Pamir Mountains, U.S.S.R.	Lake Aral	1,500

River	Source	Outflow	Approx. length, miles
Paraguay	Mato Grosso, Brazil	Paraná River	1,500
Yapurá	Andes, Colombia	Amazon River	1,500
Arkansas	Central Colorado	Mississippi River	1,450
Colorado	Middle Park, northern Colorado	Gulf of California	1,440
Dnieper	Valdai Hills, U.S.S.R.	Black Sea	1,400
Negro	Watershed between Ori- noco and Amazon	Amazon River	1,400
Ural	Southern Ural Moun- tains, U.S.S.R.	Caspian Sea	1,400
Ohio-Allegheny	Plateau in Potter County, Pa.	Mississippi River	1,306
Orange	Basutoland, Africa	Atlantic Ocean	1,300
Irrawaddy	Confluence of N'mai and Mali Rivers, northeast Burma	Bay of Bengal	1,250
Columbia	Columbia Lake, British Columbia	Pacific Ocean	1,214
Saskatchewan	Western Alberta, Canada	Lake Winnipeg	1,205
Darling	Central part of Eastern Highlands, Australia	Murray River	1,160
Tigris	Taurus Mts., Turkey	Euphrates River (Persian Gulf)	1,150
Sungari	Sungari Reservoir, Manchuria, China	Amur River	1,130
Don	Lake Ivan, U.S.S.R.	Sea of Azov	1,100

Large Lakes of the World

Name and location	Area, sq. mi.	Length, miles	Maximum depth, feet	Elevation above sea level, feet
Caspian, U.S.S.R.—Iran†	169,300	795	3,612	-86
Superior, U. S. A.—Canada	31,820	383	1,302	622
Victoria, East Central Africa	26,828	250	270	3,717
Aral, U.S.S.R.	26,233	280	222	155
Huron, U. S. A.—Canada	23,010	206	750	581
Michigan, U. S. A.	22,400	321	923	581
Baikal, U.S.S.R.	13,300	385	5,413	1,515
Tanganyika, East Central Africa	12,700	420	4,708	2,534
Great Bear, Canada	12,000	195	270*	391
Great Slave, Canada	11,170	325	—	495
Nyasa, Southern Africa	11,000	350	2,580	1,650
Erie, U. S. A.—Canada	9,940	241	210	572
Winnipeg, Canada	9,398	260	70	712
Ontario, U. S. A.—Canada	7,540	193	778	246
Balkhash, U.S.S.R.	7,115	430	36	900
Ladoga, U.S.S.R.	7,000	125	730	55
Onega, U.S.S.R.	3,764	145	408	125
Rudolf, Eastern Africa	3,475	185	—	1,250
Titicaca, Bolivia—Peru	3,200	125	892	12,507
Nicaragua, Nicaragua	3,089	110	200	135
Athabaska, Canada	3,058	195	—	699
Reindeer, Canada	2,444	155	—	1,150
Issyk-Kul, U.S.S.R.	2,230	115	2,300	5,400
Koko Nor, China	2,200	66	—	10,000
Vänern, Sweden	2,143	87	292	144
Winnipegosis, Canada	2,086	122	38	831
Bangweulu, East Central Africa	1,900	60	15	3,700
Nipigon, Canada	1,870	70	—	852
Manitoba, Canada	1,817	120	12*	813
Urmia, Iran	1,750*	80-90	50	4,184
Albert, Uganda, Africa	1,640	100	50	2,037
Dubawnt, Canada	1,600	65	—	500
Great Salt, U. S. A.	1,500	75	15-25*	4,218
Van, Turkey	1,453	80	—	5,643

* Average. † The name Caspian Sea is a misnomer; it is a land-locked lake, so classified by oceanographers.

Volcanoes of the Earth

There are approximately 430 volcanoes (275 in the Northern Hemisphere and 155 in the Southern) with recorded eruptions in historical times. Of the 2,500 recorded eruptions, more than 2,000 have taken place in the Pacific area. Of known active volcanoes, about 80 are of the submarine type.

ATLANTIC-INDIAN AREA

Mediterranean Region

Italy: Mt. Vesuvius, southeast of Naples (3,858 ft.). Only active volcano on mainland of Europe. Pompeii buried by an eruption, A.D. 79. Latest eruption in 1944.

Sicily: Mt. Etna, eastern Sicily (10,741 ft.). Two new craters formed in eruptions of Feb.-Mar., 1947. Worst eruption in 50 years occurred Nov., 1950-Jan., 1951.

Lipari Islands (north of Sicily): Stromboli (about 3,000 ft.). Called "Lighthouse of the Mediterranean." Erupted 1956.

Atlantic Area

Canary Islands: Pico de Teide (Teneriffe), on island of Teneriffe (12,192 ft.).

Cape Verde Islands: Fogo (over 8,000 ft.). Severe eruption in 1857; last until 1951.

Iceland: At least 25 volcanoes active in historic times. These volcanoes very similar to those in Hawaii.

Hekla (4,747 ft.). Several craters, largest about 1¼ mi. in circumference. Most recent eruptions reported in 1947-48.

Skaptarjökull. Series of volcanoes near Skaptar; erupted in 1783 with large loss of life and produced largest known single output of lava.

Askja (4,600 ft.). Largest in Iceland.

Jan Mayen Island: Beerenberg, northern part of island (over 8,000 ft.). Extinct.

British Cameroons: Mt. Cameroon (13,353 ft.). Has several craters. Last erupted in 1922.

Lesser Antilles (West Indian Islands): Mt. Pelée, in northwestern Martinique (about 4,400 ft.). Eruption in 1902 destroyed town of St. Pierre and killed approximately 40,000.

Indian Ocean Region

Comoro Islands (east of northern Mozambique): One volcano, Kartala (over 8,500 ft.), is visible for over 100 miles. Last erupted in 1904.

Réunion Island (east of Madagascar): Piton de la Fournaise (Le Volcan) (8,610 ft.). Large lava flows.

Tanganyika Territory: Kilimanjaro (19,565 ft.). Extinct. Highest mountain in Africa.

THE PACIFIC AREA

Northwest Portion

Kamchatka: 14-18 active volcanoes.

Shiveluch (over 10,500 ft.). Most northerly volcano of Kamchatka group.

Klyuchevskaya (Kluchev) (15,912 ft.). Erupted 1954.

Koryatskaya (over 11,500 ft.). Violent eruption in 1895.

Kurile Islands: At least 13 active volcanoes and several submarine outbreaks.

Japan: at least 33 active vents.

Fujiyama (Fujisan), southwest of Tokyo (12,385 ft.). Symmetrical in outline, snow-covered. Regarded as a sacred mountain. Adzumayama (7,733 ft.).

Asamayama (8,182 ft.). Continuously active; violent eruption in 1783; latest in 1955.

Asosan (5,223 ft.). Crater 10 by 15 miles is the largest known in the world; erupted most recently in 1958, killing 12 persons.

Bandaisan, about 125 miles north of Tokyo (9,037 ft.). Violent eruption in 1888 devastated a 27-square-mile area.

Ryukyu archipelago: Nakano-shima (3,485 ft.); Suwanose-shima (2,697 ft.).

Bonin (Ogasawara) Islands: Mt. Suribachi, on Iwo Jima (546 ft.). A sulfurous steaming volcano. Raising of U. S. flag over Mt. Suribachi was one of the dramatic episodes of World War II.

New Britain archipelago: Numerous active vents, including Father, on New Britain (7,500 ft.).

Santa Cruz Islands: Tinakula (2,200 ft.).

New Hebrides: Lopevi (4,755 ft.).

Samoa archipelago: Savaii. An eruption in 1905 did considerable damage. Niuafoou (Tin Can) between Samoa and Fiji Islands has a crater 6,000 feet below and 600 feet above water.

Philippine Islands: about 100 eruptive centers; Hibok Hibok on Camiguin island erupted in Sept. 1950, and again in Dec. 1951, when about 750 were reported killed or missing; eruptions continued during 1952-53.

Taal, on Volcano Island in Lake Bombon (about 1,000 ft.). Crater over 7,500 ft. in diameter.

Mayon, in southeastern Luzon (7,946 ft.). An almost perfect cone. Continuous mild activity. Destructive eruption in 1897.

Moluccas: A volcanic chain of islands which contains several active volcanoes.

Hawaiian Group:

Mauna Loa (13,680 ft.). Also called "Long Mountain." Discharges more lava than any other volcano. Largest volcanic mountain in the world in cubic content, with crater of 3.7 sq. mi. Violent eruption in June, 1950, with lava pouring 25 mi. into the ocean.

Mauna Kea (13,784 ft.). Highest mountain in group.

Hualalal (8,269 ft.). Has many small pit craters. Only lava flow in historic times was in 1801.

Kilauea (4,090 ft.). A vent in side of Mauna Loa but apparently erupts independently of it. One of the most spectacular and active craters. Crater has an area of 4.14 sq. mi. Erupted 1952 and again in 1955, with considerable damage.

Southwest Portion

Sumatra: Ninety volcanoes have been discovered; 12 are now active. The most famous, Krakatoa, is a small volcanic island in the Sunda Strait. Numerous volcanic discharges occurred in 1883. One explosion caused the disappearance of the highest peak and the northern part of the island. Fine dust was carried around the world in the upper atmosphere. Over 36,000 persons lost their lives in resultant tidal waves, which were felt as far away as Cape Horn. Active in 1928, 1950 and 1953.

Java: Thirteen of 125 volcanic centers are active. Few serious eruptions. Galunggung is famous for two destructive eruptions in 1822. It is thought that over 100 villages and about 4,000 lives were lost. Eruption of Merapi in 1954 caused number of deaths; it was active again in 1957.

Lesser Sunda Islands: Fifteen eruptive cones. Tamboro on Soembawa (Sumbawa) (about 9,000 ft.) was 13,000 ft. prior to a severe eruption in 1815, which ejected an estimated 36 cu. mi. of material.

Melanesian area: Volcanoes are located on New Guinea, New Hebrides, Santa Cruz, Solomons, and on numerous other small islands. Eruption of Mt. Lamington in Papua Territory, New Guinea, in Jan., 1951, killed more than 3,000.

New Zealand: Tarawera, on North Island. Severe eruption in 1886 destroyed the famous pink and white sinter terraces of Rotomahana, a hot lake.

Ngauruhoe (7,515 ft.). Emits steam and vapor incessantly. Major eruptions, 1952-54.

Northeast Portion

Alutian area: There are 32 active vents known, and numerous inactive cones.

Shisaldin, on Unimak (8,683 ft.). Latest eruption Jan., 1947.

Bogosloff, on Bogosloff island (Castle) (about 1,000 ft.). Mountain first appeared after an eruption in 1796.

Alaska:

Wrangell (14,005 ft.) and Katmai (about 7,500 ft.).

On June 6, 1912, a violent eruption of the volcano Nova Rupta occurred, during which the "Valley of Ten Thousand Smokes" was formed.

United States: Lassen Peak, in California (10,453 ft.). Only observed active volcano in the United States. Last period of activity in 1914-17. Other mountains of volcanic origin include Mt. Shasta, Mt. Hood,

Mt. Rainier, and the mountain that contains Crater Lake.

Mexico:

Popocatepetl (17,883 ft.). Crater 673 ft. deep and $2\frac{1}{2}$ mi. in circumference. Not entirely extinct; steam still escapes.

Colima (14,239 ft.), in group that has had frequent eruptions.

Orizaba (Citlaltepetl) (18,696 ft.).

Tuxtla (4,900 ft.). Had a violent eruption in 1793 but is now quiescent.

Paricutin. First appeared in Feb., 1943. In less than a week a cone over 140 ft. high developed with a crater one quarter mile in circumference. Cone grew over 1,500 ft. in 1943. Erupted 1952.

Boquerón ("Big Mouth"). Newest volcano in Western Hemisphere, discovered Sept., 1952 on San Benedicto island, about 250 mi. south of Lower California.

Guatemala:

Santa María Quezaltenango (12,361 ft.). Frequent activity between 1902-08 and 1922-28 after centuries of quiescence. Most dangerously active vent of Central America. Other volcanoes include Tajumulco (13,814 ft.) and Atitlán (11,633 ft.).

El Salvador: Izalco, "beacon of Central America," which first appeared in 1770 and is still growing (erupted in 1950, 1956); San Salvador, which had a violent eruption in 1923 and Conchagua, which erupted with considerable damage early in 1947.

Nicaragua: Volcanoes include Telica, Coseguina and Momotombo. Between Momotombo on the west shore of Lake Managua and Coseguina overlooking the Gulf of Fonseca, there is a string of more than 20 cones, many still active. One of these, Cerro Negro, erupted in July, 1947, with considerable damage and loss of life, and again in 1948-50.

Costa Rica: Four volcanic cones whose bases merge are Poás (8,895 ft.), Barba (9,280 ft.), Irazú (10,525 ft.), and Turrialba (11,350 ft.).

Southeast Portion

Colombia: Huila (18,700 ft.), a vapor-emitting volcano, and Tolima (17,109 ft.).

Eruption of Puracé (15,420 ft.), 1949, killed 17.

Ecuador: Cotopaxi (19,344 ft.). Perhaps highest active volcano in the world. Possesses a beautifully formed cone.

Cayambe (19,170 ft.). Almost on equator. Other volcanoes include Tunguragua (16,689 ft.) and Sangay (17,470 ft.).

Peru and Bolivia: Many active volcanoes, Misti, near Arequipa, Peru (19,167 ft.). Sajama, in Bolivia (21,391 ft.).

Licancábur, in Bolivia (about 19,500 ft.). *Chile and Argentina:* About 25 active or potentially active; destructive eruptions of Villarrica, Chile, 1948, and of Nilahue and Ríñihue, 1955.

Interesting Caves and Caverns of the World

Aggtelek. In village of same name, northern Hungary. Large stalactitic cavern about 5 miles long.

Altamira Cave. Near Santander, Spain. Contains animal paintings (Old Stone Age art) on roof and walls.

Antiparos. On island of same name in the Grecian Archipelago. Some stalactites are 20 ft. long. Brilliant colors and fantastic shapes.

Blue Grotto. On island of Capri, Italy. Cavern hollowed out in limestone by constant wave action. Now half filled with water because of sinking coast. Name derived from unusual blue light permeating the cave. Source of light is a submerged opening, light passing through the water.

Carlsbad Caverns. Southeast New Mexico. Largest underground labyrinth yet discovered. Three levels: 754, 900, and 1,320 feet below the surface.

Fingal's Cave. On island of Staffa off coast of western Scotland. Penetrates about 200 ft. inland. Contains basaltic columns almost 40 ft. high.

Ice Cave. Near Dobsina, Czechoslovakia. Noted for its beautiful crystal effects.

Jenolan Caves. In Blue Mountain plateau, New South Wales, Australia. Beautiful stalactitic formations.

Source of much information on Paleolithic man.

Luray Cavern. Near Luray, Virginia. Has large stalactitic and stalagmitic columns of many colors.

Mammoth Cave. Limestone cavern in central Kentucky. Cave area is about 10 miles in diameter but has at least 150 miles of irregular subterranean passageways at various levels. Temperature remains fairly constant at 54°F.

Peak Cavern or Devil's Hole. Derbyshire, England. About 2,250 ft. into a mountain. Lowest part is about 600 ft. below the surface.

Postumia (Adelsberg) Grotto. Near Postumia in Julian Alps, about 25 miles N.E. of Trieste. Stalactitic cavern, largest in Europe. *Pivka* (Pivka) River flows through part of it. Caves have numerous beautiful stalactites.

Singing Cave. Iceland. A lava cave; name derived from echoes of people singing in it.

Wind Cave. In Black Hills of South Dakota. Limestone caverns with stalactites and stalagmites almost entirely missing. Variety of crystal formations called "boxwork."

Wyandotte Cave. In Crawford County, southern Indiana. A limestone cavern with five levels of passages; one of the largest in North America. "Monumental Mountain," approximately 135 ft. high, is believed to be one of the world's largest underground "mountains."

Geysers

Geysers exist in many volcanic regions of the world such as Japan and South America, but their greatest development is in Iceland, New Zealand and Yellowstone National Park, Wyoming, U. S. A.

Iceland. The principal geyser area is about 30 miles northwest of Mt. Hekla, where there are more than 100 geysers and hot springs in about two square miles. The main ones are the following:

Great Geyser (Geysir). Sends up a column 160 to 180 ft. high intermittently from an opening more than 9 ft. across and about 70 ft. deep.

Strokkur (Churn). Constant bubbling and occasional eruptions.

New Zealand. There is a great profusion of boiling springs, steam jets and mud volcanoes northeast of Lake Taupo on North Island. Main geysers are *Waikite*, with a 30-35 ft. column, *Pohutu* and *Waimauku*.

United States

Yellowstone National Park, Wyoming. There are 120 named geysers in Yellowstone and perhaps half that number un-

named. Most of the geysers and the 4,000 or more hot springs are located in the western portion of the park. The most important are the following:

Norris Geyser Basin has 24 or more active geysers; the number varies. There are scores of steam vents and hot springs. *Valentine* is highest, erupting 50-75 ft. at intervals varying from 18 hr. to 3 days or more. *Minute*, 15-20 ft. high, several hours apart. Others include *Steamboat*, *Fearless*, *Veteran*, *Vixen*, *Corporal*, *Whirligig*, *Little Whirligig* and *Pinwheel*.

Lower Geyser Basin has at least 18 active geysers. *Fountain* throws water 50-75 ft. in all directions at unpredictable intervals. *Clepsydra* erupts violently from four vents up to 30 ft. *Great Fountain* plays every 8 to 15 hr. in spurts from 30 to 90 ft. high.

Midway Geyser Basin has vast steaming terraces of red, orange, pink and other colors; there are pools and springs, including the beautiful *Grand Prismatic Spring*. *Excelsior* crater discharges boiling water into Firehole River at the rate of 6 cu. ft. per second.

Upper Geyser Basin includes *Artemisia*, which sends up a column 15-35 ft. every 24 to 30 hr. *Riverside* has an unusual cone; it throws water 75 ft. obliquely over the river for half an hour. Interval ranges from 6 to 8½ hr.

Rocket is irregular and unpredictable, as is its neighbor *Grotto*.

Giant erupts up to 200 ft. at intervals of 2½ days to 3 mo.; eruptions last about 1½ hr. *Daisy* sends water up to 75 ft. but is irregular and frequently inactive.

Old Faithful sends up a column varying from 116 to 175 ft. at intervals of about 65 min., varying from 33 to 90 min. Eruptions last about 4 min., during which time about 12,000 gal. are discharged.

Giantess seldom erupts, but during its active periods sends up streams 150-200 ft.

Lion Group: *Lion* plays up to 60 ft. every 2-4 days when active; *Little Cub* up to 10 ft. every 1-2 hr. *Big Cub* and *Lioness* seldom erupt.

Castle usually erupts twice daily to a height of 75 ft.

Mammoth Hot Springs. There are no geysers in this area. The formation is travertine. Sides of a hill are steps and terraces over which flow the steaming waters of hot springs laden with minerals. Each step is tinted by algae to many shades of orange, pink, yellow, brown, green and blue. Terraces are white where no water flows.

Other groups of geysers, hot pools and mud pots are located on the west shore of Shoshone Lake, on West Thumb Bay, at Mud Volcano, in the Grand Canyon of the Yellowstone, and on Mirror Plateau.

Famous Ship Canals of the World

Name	Location	Year opened	Length (ml.)†	Width (ft.)	Depth (ft.)	Locks
Albert	Belgium	1939	80.0	53.0	16.5	6
Amsterdam-Rhine	Netherlands	1952	45.0	164.0	41.0	3
Beaumont-Port Arthur	United States	1916	40.0	200.0	34.0	..
Chesapeake and Delaware	United States	1927	19.0	250.0	27.0	..
Houston	United States	1914	43.0	300.0	34.0	..
Kiel	Germany	1895	61.3	144.0	36.0	4
Panama	Canal Zone	1914	50.0	110.0	41.0	12
Sault Ste. Marie	Canada	1895	1.2	60.0	16.8	1
Sault Ste. Marie	United States	1915	1.6	80.0	25.0	4
Suez	Egypt	1869	100.6*	197.0	34.0	..
Welland	Canada	1931	27.6	80.0	25.0	8

* From Port Said lighthouse to entrance channel in Suez roads. † In statute miles.

World Extremes of Climate

Highest recorded shade temperature:

World: 136° F. at Azizia, Libya, North Africa, September 13, 1922.

United States: 134° F. at Death Valley, California, July 10, 1913.

Lowest recorded temperature:

World: -102.1° F. near the South Pole, Antarctica, Sept. 17, 1957. In Siberia, -89.9° F. at Oimekon, February 6, 1933, and -89.7° F. at Verkhoyansk, February 5 and 7, 1892.

United States: -70° F. at Rogers Pass, Montana, January 20, 1954.

Highest mean annual temperature:

World: 88° F. at Lugh, Somaliland, Africa, 13-year average.

United States: 77.6° F. at Key West, Florida, 30 year normal.

Lowest mean annual temperature:

World: -55.7° F. (Jan. 11 through Dec. 31, 1957) near South Pole, Antarctica

United States: 26.9° F. at Mount Washington, N. H., 24 year average.

Maximum rainfall for 24-hour period:

World: 46 inches at Baguio, Luzon, Philippines, July 14-15, 1911.

United States: 26.12 inches at Hoegaes Camp, California, January 22-23, 1943. (Unofficially observed, 38.20 inches at Thrall, Texas, September 9-10, 1921.)

Maximum rainfall in one month:

World: 366.14 inches at Cherrapunji, India, July, 1861 (over 150 inches fell in 5 consecutive days in August, 1841).

United States: 71.54 inches at Helen Mine, California, January, 1909.

Maximum average annual precipitation (calendar year):

World: 471.68 inches at Mt. Waialeale, Island of Kauai, Hawaiian Islands, 1912-1949; 450 inches at Cherrapunji, India, 74 year average.

United States: 150.73 inches at Wynoochee, Washington, 13 year average.

Minimum average annual precipitation (calendar year):

World: 0.02 inch at Arica, Chile, 43 year average.

United States: 1.66 inches at Greenland Ranch, California, 44 year average. (Bagdad, California holds the U. S. record for the longest period with no measurable rain, 767 days, Oct. 3, 1912 to Nov. 8, 1914.)

Other U. S. precipitation extremes:

Wettest state: Louisiana, 65 year annual average of 57.34 inches.

Driest state: Nevada, 66 year annual average of 8.60 inches. (Average annual precipitation for the United States is about 29 inches.)

Heavy U. S. snowfall records:

Greatest average annual: 575.1 inches at Paradise Ranger Station, Rainier Park, Washington.

Greatest amount in one season: 1000.3 inches at Paradise Ranger Station, Rainier Park, Washington, 1955/56.

Greatest amount in a calendar month: 390 inches at Tamarack, California, Jan., 1911.

Greatest in 24 hours: 76 inches at Silver Lake, Colorado, April 14-15, 1921. (This storm, April 12-15, produced highest known rates in U. S. for durations up to 3 days —95 inches in 48 hours; 98 inches in 72 hours; 100 inches in 85 hours.)

In the New York City blizzard of December 26, 1947, 25.8 inches of snow fell in about 20 hours, almost 5 inches more than fell in the blizzard of March, 1888.

Largest hailstone definitely recorded in U. S.: 1½ pounds by weight, at Potter, Nebraska, July 6, 1928.

Ancient Empires

The *Egyptian* and *Babylonian* empires, Near Eastern civilizations whose cultures mark the beginning of written history, had their origins in the nebulous period of ancient history prior to the year 4000 B.C. They developed rapidly in the fertile river valleys of the Nile in Egypt and the Tigris-Euphrates in Mesopotamia after the discovery of metals and the invention of writing. Their governments were all-powerful, with the people subjugated and without political rights. The Egyptians regarded their king as a god. In Babylon, the ruler was a priest-king, earthly representative of the gods. Nevertheless, these Near East cultures made great contributions to the eternal march of man; they advanced the ways of making and doing things, produced the earliest literature, developed the principles of law (the code of Hammurabi, Babylonian king of the 18th [or possibly 17th] century B.C., the oldest code of law) and science.

The influence of Babylon and Egypt was felt in the rise of the Semitic tribes of Syria, the Hittites in Asia Minor, and the people of the Aegean region. Between the years 1200 and 800 B.C., the small Syrian states grew to great power and then were overwhelmed by the great empire of the *Assyrians*, the warlike peasants of the Tigris valley, who took the lessons learned from the Babylonians and spread that culture over their domains. The Assyrians, like the Egyptians and the Babylonians, in turn fell under the power of the *Persian* kings in the century between 600 and 500 B.C. By 525 B.C., the Persian Empire extended from India to Egypt.

The lessons learned by these early Near Eastern civilizations were transmitted to *Greece*, which developed its illustrious empire in the Aegean region, after the inhabitants of the island of Crete had absorbed the Egyptian culture. The mainland Greeks overthrew the Cretans and in turn were succeeded by the Doric Greeks, who spread their culture across the Aegean, the Asia Minor coast, and into the Mediterranean and Black Sea regions. The char-

acteristic Greek political institution was the city-state, first ruled by kings and often temporary monarchical tyrannies, and finally by the participation of free citizens. Literature and the arts flourished, and by the 5th century B.C., when Athens became the great city of the Greeks, drama had risen to full maturity with the great tragedies of Sophocles and Euripides and the comedies of Aristophanes. Architecture and art advanced apace. The Greeks, learning much from their Egyptian teachers, produced such superb buildings as the Parthenon and created amazingly beautiful statues through the use of living models. Religion, which was closely linked with art, also flourished, as did the development of philosophy, under Socrates, Plato and Aristotle. Wars weakened the city-states, and they fell to Alexander the Great in the 4th century B.C.

Last among the great ancient empires was the *Roman*, which developed in Italy and gained control over the Mediterranean region after absorbing the culture of Greece and combining with it new principles of law and art and teaching this new learning to the West. The development of the Roman civilization began in 510 or 509 B.C., when the peoples on the peninsula of Italy freed themselves from the rule of the Etruscans. The Romans, with a republican form of government, speedily conquered Italy and the Mediterranean region, and the Roman governors became men of great wealth, corrupting the city-state system and making it a graft-ridden machine of exploitation. The failure of the government to check this self-seeking influence brought on a revolt which resulted eventually in the rise of Julius Caesar to dictatorship in 46-44 B.C. Caesar's murder in the Senate at Rome was followed in 27 B.C. by the establishment of the one-man rule of Augustus over the Roman Empire. Legal practices were developed and became the foundations of modern law. This great ancient civilization began to crumble in the 3d century A.D.

Languages of the World

(spoken natively by 5,000,000 or more people)

Language	Number speaking	Language	Number speaking
American Indian: including Mayan, Quéchua and 750-1,000 other languages and dialects	15,000,000	Bisayan, Ilocano, Javanese, Madurese, Malay, Malagasy, Sundanese, Tagalog	105,000,000
Amharic (Ethiopia)	5,600,000	Iranian: including Baluchi, Kurdish, Persian, Pushtu	26,500,000
Annamese (Indo-China)	20,000,000	Italian	50,000,000
Arabic	65,000,000	Japanese	90,000,000
Bantu: including Swahili, Zulu (S. Africa)	45,000,000	Javanese	41,000,000
Bengali (India; Pakistan)	70,000,000	Kanarese (India)	14,000,000
Berber dialects (N. Africa)	6,000,000	Korean	30,000,000
Bihari (India)	37,000,000	Lahnda (India; Pakistan)	13,000,000
Bisayan (Philippines)	9,000,000	Madurese (Indonesia)	6,500,000
Bulgarian	7,000,000	Malay (Indonesia)	14,000,000
Burmese	13,000,000	Malayalam (India)	14,000,000
Catalan (Spain)	6,000,000	Marathi (India)	27,000,000
Chinese: including Mandarin, Cantonese and others	475,000,000	Munda (India)	5,000,000
Cushitic: including Somali (Ethiopia)	7,000,000	Oriya (India)	13,000,000
Czech	8,500,000	Persian	12,000,000
Dravidian: including Kanarese, Malayalam, Tamil, Telugu (India)	95,000,000	Polish	30,000,000
Dutch	15,000,000	Portuguese	63,000,000
English	265,000,000	Punjabi (India; Pakistan)	22,000,000
Ethiopian: including Amharic	6,400,000	Pushtu (Afghanistan; Pakistan)	8,000,000
Finnno-Ugric: including Estonian, Finnish, Hungarian, Karelian, Lappish	21,500,000	Rajasthanl (India; Pakistan)	17,000,000
Flemish (Belgium)	5,000,000	Rumanian	16,000,000
French	65,000,000	Russian	200,000,000
German	90,000,000	Serbo-Croatian (Yugoslavia)	15,000,000
Greek	8,000,000	Siamese	16,000,000
Gujarati (India; Pakistan)	16,000,000	Sinhalese (Ceylon)	5,500,000
Hausa (Central Africa)	9,000,000	Spanish	150,000,000
Hindi (India; Pakistan)	150,000,000	Sudan: including Hausa (Central Africa)	75,000,000
Hungarian	13,000,000	Sundanese (Indonesia)	13,000,000
Indic: including Assamese, Bengali, Bihari, Gujarati, Hindi, Lahnda, Marathi, Oriya, Punjabi, Rajasthani, Sindhi, Sinhalese	415,000,000	Swahili (E. Africa)	8,000,000
Indonesian: including Balinese,		Swedish	7,000,000

Universities—Medieval and Modern

Universities, in the modern sense of the term, sprang up in the 12th and 13th centuries in response to the resurgence of learning that preceded the Renaissance in Europe. Procedure at the early universities was informal, with students gathering at some place in a city to listen to a pre-eminent teacher. There were no campuses, buildings or endowments. Actually, the term "university" once meant a guild or corporation; there were, in the medieval period, "universities" of bootmakers, weavers, etc. Thus the university of learning was similar in organization to the guilds. The students filled the role of apprentices and the teachers were the masters.

The first European university was that of *Salerno* in the 9th century, when it was known as a school of medicine. By the 11th century, it had become one of the most famous medical schools of Europe.

University of Bologna. Originated about 1200 as student guilds for protection against the merchants and citizens of Bologna who had raised prices of food and lodging. It was famous for its legal scholars. The students were organized into two guilds and exercised a great deal of authority over the administration.

Other Italian universities famed in the Middle Ages included those at *Arezzo*, *Fer-*

rara, Florence, Modena, Naples, Padua, Pavia, Perugia, Siena and Vicenza.

University of Paris. Originated between 1150 and 1170 in a cathedral school on the Ile de la Cité, it was later moved to the left (south) bank of the Seine, although it remained under the authority of the chancellor of Notre Dame. It developed into the most famous continental center of learning of its day. Its four principal schools were theology, medicine, law and arts. By the 14th century, the university had some 40 colleges, of which the *Sorbonne* became the most celebrated.

The universities of Paris and Bologna had a marked influence in the subsequent creation of other university centers. About 1167-68 there was a migration of students from Paris to *Oxford* (founded in the 12th century) and about 1210, from Oxford to *Cambridge* (also founded in the 12th century).

Other famous universities of the Middle Ages include the *University of Toulouse* (1233), *Salamanca* (1243), *Seville* (1254), *Orléans* (1305), *Valladolid* (1346), *Prague* (1347), *Kraków* (1364), *Vienna* (1364), *Erfurt* (1379), *Heidelberg* (1385), *Cologne* (1388), *Leipzig* (1409), *Rostock* (1419) and *Louvain* (1426).

The Renaissance

The Renaissance gave fresh impetus to the universities of Europe. In France three of importance arose in the 15th century—the *University of Aix* (1409, Provence), the *University of Poitiers* (1431) and the *University of Caen* (1437).

Other French institutions of note that arose in this era were at *Bordeaux* (1441), *Valence* (1452), *Nantes* (1463) and *Bourges* (1465). New European universities were also founded at *Trier* (1450), *Freiburg* (1456), *Ingolstadt* (1459), *Basel* (1460), *Budapest* (1475), *Mainz* (1476), *Uppsala* (1477), *Tübingen* (1477), *Copenhagen* (1479), *Wittenberg* (1502), *Frankfurt on Oder* (1506) and *Coimbra* (1537).

St. Andrews, founded in 1411, was the first university in Scotland. Others were the *University of Glasgow* (1453) and the *University of Aberdeen* (1494). The *College of Edinburgh* was established in the post-Reformation period (1582). In Ireland, *Trinity College* was founded in Dublin in 1591.

Reformation and Post-Reformation

Until the Reformation, most of the institutions of higher learning in Europe were under the tutelage of the Catholic Church. After 1520, however, many established universities declared their independence of the Church. Cromwell's rule brought about new scholastic methods at both Oxford and Cambridge and the es-

tablishment of new colleges thoroughly imbued with Protestantism.

But the first Protestant university was that of *Marburg*, Germany, founded in 1527. Other Protestant universities were: *Königsberg* (1544); *Jena* (1558); *Helmstedt* (1575); *Altdorf* (1575); *Giessen* (1607); *Strasbourg* (1621); *Halle* (1693).

18th, 19th and 20th Centuries

Among the more famous institutions in this era was *Göttingen* (1736), whose school of history became celebrated throughout Europe. Others were: *Erlangen* (1743); *Berlin* (1809); *Lemberg* (Lwów) (1816); *Bonn* (1818); *Helsingfors* (1828); the *National University at Athens* (1837); *Bucharest* (1864); *Tokyo* (1877); *Sofia* (1888) and *Kyoto* (1897).

Among the more famous British universities established in the 19th and 20th centuries were the *University of London* (1828); *Manchester* (1851); the *Mason University College* in Birmingham, later *Birmingham University* (1900); *Liverpool* (1903); *Leeds* (1904); and the *University of Sheffield* (1905). The *University of Wales* (1893) is composed of the colleges of *Aberystwyth*, *Bangor* and *Cardiff*.

There are many large and important universities in the British Commonwealth. In Canada, the famous *McGill University* in Montreal was founded in 1821. Others are the *University of Toronto* (1827); *Queens University* at Kingston, Ont. (1841); *Laval University*, Quebec (1852); *Dalhousie*, Halifax (1818), and *Montreal University* (1878).

The early universities in India were patterned after London University rather than on the Oxford-Cambridge style, and were purely examining institutions. *Calcutta*, *Bombay* and *Madras* universities were founded in 1857 as examining bodies.

In Australia, the state plays an important role in the development of universities. The *University of Melbourne* (1853) has the largest enrollment. Among the others are *Adelaide* (1874); *Tasmania* (1890); *Queensland* (1909); *Sydney* (1850), and *Western Australia* (1911).

There are also many well-endowed universities in New Zealand, South Africa, and other parts of the Commonwealth.

By 1800, Russia had only three universities—*Vilna* (1578), *Dorpat* (1632) and *Moscow* (1755). Other institutions developed later were the *University of Kharkov* (1804); *Kazan* (1804); *Warsaw*, now Polish (originally established 1816, but closed 1832-69); *St. Petersburg* (1819); *St. Vladimir* in Kiev (1835); *Odessa* (1865) and *Tomsk*, in Siberia (1888). The building of universities after the Revolution of 1917 was spurred by the Soviet government.

In China, the growth of universities was hampered by the chaotic state of the government in the 1900's, the recurring civil wars and the conflict with Japan.

The United States

Universities in the United States marched in step with the progress of the nation. The early settlers brought a heritage of European culture which they planted in New England soil. The first university in the country was started as *Harvard College* in 1636, with an endowment totaling 800 pounds. Harvard was to become probably the most famous of the American universities.

The *College of William and Mary* (1693) was the second institution of higher learning established in the colonies. Others started during the colonial period (current names only) are: *Yale* (1701); *University of Pennsylvania* (1740); *Princeton* (1746); *Washington and Lee* (1749); *Columbia* (1754); *Brown* (1764); *Rutgers* (1766) and *Dartmouth* (1770).

After the Revolution of 1776, the state tax-supported university was established. The *University of Virginia* (1819) was a notable early example of this type.

Colleges for women grew up in the second quarter of the 19th century. Among these are: *Mt. Holyoke* (1837); *Elmira* (1855); *Vassar* (1861); *Wells* (1868); *Hunter* (1870); *Wellesley* (1870); *Smith* (1871) and *Bryn Mawr* (1880).

In the latter part of the 19th century, universities established by private endowments arose. Typical of these are: *Cornell* (1865), which is also a land-grant institution; *Johns Hopkins* (1876); *Stanford* (1885) and the *University of Chicago* (1890).

Libraries of the World

Europe and Asia

Among the great libraries of the world, the *British Museum* remains in the first rank with more than 6,000,000 printed volumes and 60,000 manuscripts. It contains such outstanding treasures as the *Codex Alexandrinus* and the *Codex Sinaiticus* of the Bible, the best collection of Greek papyri from Egypt, and vast collections of original historical manuscripts of incalculable value. Some 150,000 volumes were destroyed in air raids during World War II, but many were replaced later.

One of the finest libraries in the world is the *Bibliothèque Nationale* in Paris, which has approximately 6,000,000 volumes, 155,000 manuscripts, 450,000 medals and coins, 5,000,000 prints and engravings and 400,000 maps.

The *State Library* in Berlin, founded in 1659-61, was amalgamated in 1947 with the library of the University of Berlin. Prior to World War II, the State Library had 2,850,000 volumes; the new combined library had only 1,500,000. The *State Library* at Munich also suffered extensive war losses, with some 500,000 volumes destroyed; it now contains about 2,000,000. Estimates have placed the war losses of all German libraries at between 20 and 25 million volumes.

The *Nationalbibliothek* in Vienna has about 1,500,000 volumes, a large collection of papyri, and a notable theater and motion picture collection.

While not as large as some of the European state libraries, the *Biblioteca Apostolica Vaticana* in Rome has many priceless old manuscripts bequeathed to the Vatican over the centuries, including the *Codex Vaticanus* of the 4th century.

Three of the more important Italian libraries are the *Biblioteca Nazionale* in Naples, with about 1,400,000 volumes; the *Biblioteca Nazionale Centrale* in Florence, with 4,000,000 volumes; and the *Biblioteca Nazionale Centrale* in Rome, with approximately 1,970,000 volumes.

Other large European libraries are the *Bibliothèque Royale* in Brussels (2,000,000 volumes), the *Biblioteca Nacional* in Madrid (1,500,000), the *University Library* at Amsterdam (more than 1,500,000) and the *Royal Library* in Stockholm (900,000). The *Lenin State Library* in Moscow is said to contain 15,000,000 volumes (a figure that probably includes periodicals), besides many collections of valuable historical documents. In Leningrad, the *Public Library* claims 10,000,000 volumes, and the *Library of the Academy of Sciences* some 8,000,000. There are said to be 350,000 libraries in all parts of the U.S.S.R.

In the Far East, the most extensive libraries are found in Japan, although war damage in 1944-45 was severe. In Tokyo, the *National Diet Library* (formerly the *Imperial Library*) was organized in 1948 as a deposit center. With its various branches, it contains an estimated 4,100,000 volumes. The *University Library* at Kyoto has about 1,820,000.

The oldest national libraries in South America are those of Argentina and Brazil, each founded in 1810; the former has about 600,000 volumes, the latter 1,000,000.

The United States and Canada

The earliest libraries in the colonial era were privately owned, although in 1731 Benjamin Franklin projected the first subscription library in Philadelphia. Endowments helped to set up many of the large

libraries, although many of these institutions are now receiving state or municipal support.

The largest library in the United States is the *Library of Congress*, established in 1800 by Congress. In 1957, it contained more than 11,050,000 books and pamphlets, and total collections of over 36,100,000. It extends services to members of Congress and other government departments, and also offers excellent facilities for persons engaged in scholarly research.

The *New York Public Library*, with some 6,400,000 volumes in 1957, is the largest public library in the U. S.

The *American Library Directory* for 1954 listed 12,478 libraries in the U. S., including 6,925 public (with 3,106 branches), 1,374 college and university, 1,923 special and 2,256 other types.

The growth of libraries attached to colleges and universities in the United States

has been phenomenal, and some of the university libraries are among the largest in the country. Those with more than 1,000,000 volumes each in 1956 were as follows: Harvard, 6,075,000; Yale, 4,280,000; California, including branches, 3,632,000; Illinois, 3,090,000; Michigan, 2,325,000; Columbia, 2,117,000; Chicago, 1,911,000; Minnesota, 1,791,000; Cornell, 1,746,000; Princeton, 1,500,000; Pennsylvania, 1,475,000; Stanford, 1,309,000; Texas, 1,273,000; Duke, 1,198,000; Northwestern, 1,185,000; Ohio State, 1,150,000; Johns Hopkins, 1,068,000; New York University, 1,041,000; Indiana, 1,000,000.

In Canada, the most important public library is that of Toronto, which has more than 875,000 volumes. Large Canadian university libraries include those at Queens (280,000), Toronto (609,000), McGill (720,000), and Laval (339,000). The *American Library Directory* for 1954 listed a total of 719 libraries in Canada, including 683 public.

Museums of the World

(For U. S. Museums, see page 482.)

The modern museum originated during the Renaissance, when the revival of interest in the arts and classical antiquity led princes, nobles and humanists to amass specimens of historical value and to house their collections in special buildings or galleries.

Art Museums

The *British Museum*, London, contains some of the most famous historical objects of the world, including the Elgin Marbles and the Rosetta Stone.

Victoria and Albert Museum, London, whose primary object is to furnish examples to illustrate the history of art, emphasizes architecture and sculpture, ceramics, engraving, book production, paintings, textiles, etc. The library is devoted principally to fine and applied arts of all countries.

National Gallery, London, contains a great number of old Masters, including paintings by Da Vinci, Michelangelo, Titoretto, Mantegna, Titian, Bellini, Jan van Eyck, Rubens, Rembrandt, Holbein, Constable and Turner.

Tate Gallery, London, established as part of the National Gallery, was badly damaged during air raids of World War II, but was completely restored by 1949.

Wallace Collection, London, has many objets d'art and curios of French origin, and first-rank canvases and etchings of Italian, Spanish, Flemish, Dutch and English artists.

In France, the most famous gallery is the *Louvre* in Paris, noted for the magnificence of its architecture as well as for

its art collection, which is the largest in the world. Other Parisian museums of importance are *Cluny*, *Rodin*, *Guimet*, and *Carnavalet*.

Among the magnificent Italian museums, the *National Museum* at Naples contains one of the best arranged and classified collections. The *Uffizi Gallery* in Florence, founded by the Medicis, has one of the world's largest and best collections of Italian art. Other galleries in Florence are the *Gallery of Modern Art* (*Pitti Palace*) and the *National Museum* (*Bargello*). Rome has numerous museums, including several in the Vatican.

In Berlin, the *National Gallery* was damaged during World War II.

The *Royal Museum of Fine Arts* in Brussels has a fine collection of French, Flemish and Dutch masters and houses many canvases by Rubens, Van Dyck, Jordaens, Rembrandt, Frans Hals and Jan Steen.

The *State Museum* in Amsterdam contains superb works by Rembrandt, Vermeer and others.

Among the notable art museums in other countries are the world-famous *Museo del Prado* in Madrid; the *Tretyakov Gallery* and the *Pushkin State Museum of Fine Arts* in Moscow; the *Hermitage State Museum* in Leningrad; and the *National Museum* in Tokyo, famed for its many Oriental paintings and objects of art.

Science Museums

The *Ashmolean Museum*, oldest in Great Britain, was founded in 1683 by Oxford

University and houses a collection of archeological and classical rarities.

Science Museum of London has exhibits of scientific instruments and appliances which review the progress of science and the history of invention. Other London museums of science are the *Natural History (British Museum)*, the *Imperial War Museum* (exhibits of both World Wars) and the *Geological Museum*.

The *Liverpool Museums* contain valuable collections of natural history and antiquities and are divided into departments of zoology, botany, geology, archeology and ethnology. The buildings were almost completely destroyed during World War II, although most of the exhibits were saved.

The *Manchester Museum* serves as both a municipal and a university museum. The *Bristol Museum* contains departments of geology, zoology, botany, archeology and Bristol antiquities. The *National Museum of Wales* at Cardiff has departments of art, archeology, botany, geology and zoology.

In Edinburgh, Scotland, are the famed *Royal Scottish Museum*, which has collections in art, ethnography, natural history, technology and archeology; and the *National Museum of Antiquities of Scotland*, noted for its coin and manuscript collections.

The *National Museum* in Dublin and the *Municipal Museum* in Belfast have important science collections.

Notable institutions of continental Europe include the *Natural History Museum* in Paris, the *Museum of Oceanography* in Monaco, the *Natural History Museum* in Lisbon, the *State Museum of Geology and Mineralogy* in Leyden (Netherlands), the *Museum of Natural History* in Stock-

holm, the *Natural History Museum* in Vienna, the *Hungarian National Museum* in Budapest, the *National Museum* in Prague, and the various science museums in Berne, Geneva, Zurich and Neuchâtel, Switzerland. Most larger cities of the U.S.S.R. have science museums of varying sizes, some specializing in local exhibits of natural history.

Famous science museums in Germany prior to World War II included the various sections of the *Staatliche Museen* in Berlin (re-established after the war) and the museum of ethnography in Hamburg.

In Calcutta is the *Indian Museum*, outstanding for its marine fauna and vertebrate fossils, and in Bombay the *Victoria and Albert Museum*.

In Australia are the *Queensland Museum* and the *Botanic Museum* in Brisbane, the *South Australian Museum* in Adelaide, and the *Australian Museum* in Sydney.

New Zealand contains the *Canterbury Museum*, Christchurch, rich in local fauna, flora and geological items, and a Maori and Polynesian ethnological collection.

In Africa, the *South African Museum*, Capetown, holds general and local history collections and others illustrating anthropology, ethnology and archeology. The *Durban Museum* contains much anthropological material. In Cairo are the notable collections of the *Egyptian Museum*.

Other museums of note include the *Archeological Museums* at Istanbul, the *Tokyo Science Museum*, the *National Museum of Natural History* in Santiago (Chile), the *National Museum* at Rio de Janeiro, and the *Argentine National Museum of Natural Sciences* at Buenos Aires.

Zoological Gardens

North America has more than 30 major zoos, in the United States, Canada and Mexico. The *Quebec Zoological Society's* collection is made up of Canadian species; Toronto has many exotic species.

The first zoological garden in the United States was established in Philadelphia in 1874. Since that time nearly every large city in the country has acquired a zoo. Among the largest are the celebrated *Bronx Zoo* and the *Central Park Zoo* in New York, the *Lincoln Park Zoo* and the *Brookfield Zoo* in Chicago, and those in St. Louis, Cincinnati, Detroit, Kansas City and San Diego. The *National Zoological Park* in Washington, D. C., in a beautiful setting of hills, woods and streams, was established in 1890 by an act of Congress. Some of the U. S. zoos exhibit their collections in open-air, barless pits; the *Brookfield Zoo* is an example.

In Europe, zoological gardens have long been popular public institutions. The *Jardin d'Acclimatation*, in the Bois de Boulogne, Paris, was established in 1858, and a model zoo at Vincennes was added in 1937 for the Paris Exposition.

Germany had about 20 zoological gardens, many of which were developed in the peacetime years between World Wars I and II. Large zoos were located in Berlin and Frankfurt am Main. In Munich, the animals were grouped according to the continent of their origin. Others were established at Dresden, Leipzig and Cologne. At Stellingen, the *Hagenbeck Garden* became an outstanding show place and distributing center for animals. Smaller collections were established at Düsseldorf, Elberfeld and Hanover. Several German zoos, notably that at Berlin, were destroyed during World War II.

The *Schönbrunn* at Vienna is one of the oldest zoos in Europe. The Budapest zoological gardens house a fine collection of European birds. At Antwerp, the *Royal Zoological Society* founded a large menagerie in 1843. It was seriously damaged by German bombs during World War II.

In the British Isles, the outstanding collection is in the garden of the *London Zoological Society* in Regent's Park. Although this zoo received a number of direct bomb hits in 1940-41 and again in 1944, it remained open throughout World War II; visitors during this period numbered 6,500,000. Manchester and Clifton have smaller gardens, and the one at Edinburgh is famous for its collection of pen-

guins. The *Dublin Zoo* is noted for its lions, many of which were born there.

The Amsterdam zoo, with its East Indian collection and its aquarium, and the Rotterdam gardens are the two best known in the Netherlands. Built on a high elevation, the *Skansen Zoo* in Stockholm exhibits its north European specimens. The most important gardens in the U.S.S.R. are found in Moscow, where northern as well as exotic species are collected. The zoo at Rome has part of its collection confined in barless pits. At Lisbon there is a small zoological garden, and in Madrid a part of the original royal menagerie. A new zoo notable for its landscaping was opened at Naples, Italy, in 1952.

Famous Structures

(See also Seven Wonders of the World on page 791.)

Ancient

The Great Sphinx of Egypt, one of the wonders of ancient Egyptian architecture, adjoins the pyramids of Giza and has a length of 189 ft. It was built in the 4th dynasty and was used as a temple.

Other Egyptian buildings of note include the *Temples of Karnak* and *Edfu* and the *Tombs at Beni Hassan*.

The Parthenon of Greece, built on the Acropolis in Athens, was the chief temple to the goddess Athena. It was believed to have been completed by 438 B.C. The present temple remained intact until the 5th century A.D. Today, though the Parthenon is in ruins, its majestic proportions are still discernible.

Other great structures of ancient Greece were the *Temples at Paestum* (about 540 and 420 B.C.); the *Temple of Poseidon* (about 460 B.C.); the *Temple of Apollo at Corinth* (about 540 B.C.); the *Temple of Apollo at Bassae* (about 450-420 B.C.); the famous *Erechtheum* atop the Acropolis (about 421-405 B.C.); the *Temple of Athena Nike* at Athens (about 426 B.C.); the *Olympieum* at Athens (174 B.C.-A.D. 131); the *Athenian Treasury* at Delphi (about 515 B.C.); the *Propylaea* of the Acropolis at Athens (437-432 B.C.); the *Theater of Dionysus* at Athens (about 350-325 B.C.); the "*House of Cleopatra*" at Delos (138 B.C.) and the *Theater* at Epidauros (about 325 B.C.).

The Colosseum (Flavian Amphitheater) of Rome, the largest and most famous of the Roman amphitheaters, was opened for use A.D. 80. Elliptical in shape, it consisted of three stories and an upper gallery, rebuilt in stone in its present form in the third century A.D. Its seats rise in tiers, which in turn are buttressed by concrete vaults and stone piers. It could seat between 40,000 and 50,000 spectators. The

Colosseum was principally used for gladiatorial combat.

The Pantheon at Rome, begun by Agrippa in 27 B.C. as a temple, was rebuilt in its present circular form by Hadrian (A.D. 110-25). Literally the Pantheon was intended as a temple of "all the gods." It is remarkable for its perfect preservation today, and it has served continuously for 20 centuries as a place of worship.

Famous Roman arches include the *Arch of Constantine* (about A.D. 315) and the *Arch of Titus* (about A.D. 80).

Later European

St. Mark's Cathedral in Venice (1063-67), one of the great examples of Byzantine architecture, was begun in the 9th century. Partly destroyed by fire in 976, it was later rebuilt as a Byzantine edifice.

Other famous Byzantine examples of architecture are *St. Sophia* in Constantinople (A.D. 532-37); *San Vitale* in Ravenna (542); *St. Paul's Outside the Walls*, Rome (5th century); the *Kremlin* baptism and marriage church, Moscow (begun in 1397); and *St. Lorenzo Outside the Walls*, Rome, begun in 588.

The Cathedral Group at Pisa (1067-1173), one of the most celebrated groups of structures built in Romanesque style, consists of the cathedral, the cathedral's baptistery, and the *Leaning Tower*. This trio forms a group by itself in the northwest corner of the city. The cathedral and baptistery are built in black and white marble. The campanile (*Leaning Tower*) is 179 ft. high and leans more than 16 feet out of the perpendicular. There is little reason to believe that the architects intended to have the tower lean.

Other examples of Romanesque architecture include the *Vézelay Abbey* in France (1130); the *Church of Notre-Dame-*

du-Port at Clermont-Ferrand in France (1100); the *Church of San Zeno* (begun in 1138) at Verona, and *Durham Cathedral* in England.

The *Alhambra* (1248-1354), located in Granada, Spain, is universally esteemed as one of the greatest masterpieces of Moslem architecture. Designed as a palace and fortress for the Moorish monarchs of Granada, it is surrounded by a heavily fortified wall more than a mile in perimeter. The location of the Alhambra in the Sierra Nevada provides a magnificent setting for this jewel of Moorish Spain.

The *Tower of London* is a group of buildings and towers covering 13 acres along the north bank of the Thames. The central *White Tower*, begun in 1078 during the reign of William the Conqueror, was originally a fortress and royal residence, but was later used as a prison. The *Bloody Tower* is associated with Anne Boleyn and other notables.

Westminster Abbey, in London, was begun in 1045 and completed in 1065. It was rebuilt and enlarged in 1245-50.

Notre-Dame de Paris (begun in 1163), one of the great examples of Gothic architecture, is a twin-towered church with a steeple over the crossing and immense flying buttresses supporting the masonry at the rear of the church.

Other famous Gothic structures are *Chartres Cathedral* (12th century); *Sainte Chapelle*, Paris (1246-48); *Laon Cathedral*, France (1160-1205); *Rheims Cathedral* (about 1210-50; rebuilt after its almost complete destruction in World War I); *Rouen Cathedral* (13th-16th centuries); *Amiens Cathedral* (1218-69); *Beauvais Cathedral* (begun 1247); *Salisbury Cathedral* (1220-60); *York Minster* or the *Cathedral of St. Peter* (begun in the 7th century); *Milan Cathedral* (begun 1386); and *Cologne Cathedral* (13th-19th centuries; badly damaged in World War II).

The *Duomo* (cathedral) in Florence was founded in 1298, completed by Brunelleschi and consecrated in 1436. The oval-shaped dome dominates the entire structure.

The *Vatican* is a group of buildings in Rome comprising the official residence of the Pope. The *Basilica of St. Peter*, the largest church in the Christian world, was begun in 1450. The *Sistine Chapel*, begun in 1473, is noted for the art masterpieces of Michelangelo, Botticelli and others. The *Basilica of the Savior* (known as *St. John Lateran*) is the first-ranking Catholic Church in the world, for it is the cathedral of the Pope.

Other examples of Renaissance architecture are the *Palazzo Riccardi*, the *Palazzo Pitti* and the *Palazzo Strozzi* in Florence; the *Farnese Palace* in Rome; *Palazzo Grimani* (completed about 1550) in Venice;

the *Escorial* (1563-93) near Madrid; the *Town Hall of Seville* (1527-32); the *Louvre*, Paris; the *Château at Blois*, France; *St. Paul's Cathedral*, London (1675-1710; badly damaged in World War II); the *Ecole Militaire*, Paris (1752); the *Pazzi Chapel*, Florence, designed by Brunelleschi (1429); the *Palace of Fontainebleau* and the *Château de Chambord* in France.

The *Palace of Versailles*, containing the famous Hall of Mirrors, was built during the reign of Louis XIV and served as the royal palace until 1793.

Outstanding European buildings of the 18th and 19th centuries are the *Superga* at Turin, the *Hôtel-Dieu* in Lyon, the *Belvedere Palace* at Vienna, the *Royal Palace of Stockholm*, the *Opera House of Paris* (1863-75); the *Bank of England*, the *British Museum*, the *University of London* and the *Houses of Parliament*, all in London; the *Panthéon*, the *Church of the Madeleine*, the *Bourse* and the *Palais de Justice* in Paris.

The *Eiffel Tower*, in Paris, was built for the Exposition of 1889 by Alexandre Eiffel. It is 984 ft. high.

Asiatic and African

The *Taj Mahal* (1632-50), at Agra, India, built by Shah Jahan as a tomb for his wife, is considered by some as the most perfect example of the Mogul style and by others as the most beautiful building in the world. Four slim white minarets flank the building, which is topped by a white dome; the entire structure is of marble.

Other examples of Indian architecture are the temples at Benares and Tanjore.

Among famed Moslem edifices are the *Dome of the Rock* or *Mosque of Omar*, Jerusalem (A.D. 691); the *Citadel* (1166), and the *Tombs of the Mamelukes* (15th century), in Cairo; the *Tomb of Humayun* in Delhi; the *Blue Mosque* (1468) at Tabriz and the *Tamerlane Mausoleum* at Samarkand.

Angkor Vat, outside the city of Angkor Thom, Cambodia, is one of the most beautiful examples of Cambodian or Khmer architecture. The sanctuary was built during the 12th century.

Great Wall of China (228 B.C.?), designed specifically as a defense against nomadic tribes, has numerous large watch towers which could be called buildings. It was erected by Emperor Ch'in Shih Huang Ti and is 1,400 miles long. Built mainly of earth and stone, it varies in height between 18 and 30 feet.

Typical of Chinese architecture are the pagodas or temple towers. Among some of the better known pagodas are the *Great Pagoda of the Wild Geese* at Sian (founded in 652); *Nan 't'a* (11th century) at Fang Shan; the *Pagoda of Sung Yueh Ssu* (A.D. 523) at Sung Shan, Honan.

Other well-known Chinese buildings are the *Drum Tower* (1273), the *Three Great Halls* in the Purple Forbidden City (1627), *Buddha's Perfume Tower* (19th century), the *Porcelain Pagoda* and the *Summer Palace*, all at Peiping.

United States

Rockefeller Center, from 5th to 6th Aves. and from 48th to 51st Sts. in New York City, occupies 12½ acres and contains 15 buildings, the highest being the 70-story *RCA Building*.

Grant's Tomb, at Riverside Dr. near 122nd St. in New York City, contains the bodies of Ulysses S. Grant and his wife. It was completed in 1897.

The Cathedral of St. John the Divine, at Cathedral Pkwy. and Amsterdam Ave. in New York City, was begun in 1892 but

is not yet completed. When completed, it will be the largest Gothic cathedral in the world: 601 ft. long, 146 ft. wide at the nave, 320 ft. wide at the transept.

St. Patrick's Cathedral, at 5th Ave. and 50th St. in New York City, has a seating capacity of 4,500. The nave was opened in 1877; the cathedral was dedicated in 1879.

Lincoln Memorial, in Washington, D. C., was dedicated in 1922. It has 36 columns (the number of states in 1865), each 44 ft. high. The main chamber contains a statue of Lincoln.

Independence Hall, in Philadelphia, was the scene of the signing of the Declaration of Independence and the drawing up of the U. S. Constitution. It was built between 1732-41 as the State House. The Liberty Bell is on the first floor.

Great Dams of the World

Reservoir capacity, thousands of acre feet	Name	Location	Maximum height, feet	Date completed
31,142	Hoover	Colorado River, Ariz.-Nev.	726	1936
24,500	Garrison	Missouri River, N. Dak.	210	1954
19,600	Oahe	Missouri River, S. Dak.	230	*
19,412	Fort Peck	Missouri River, Mont.	250	1940
9,517	Grand Coulee	Columbia River, Wash.	550	1942
6,200	Fort Randall	Missouri River, S. Dak.	150	1954
6,100	Kentucky	Tennessee River, Ky.	160	1944
6,089	Wolf Creek	Cumberland River, Ky.	242	1951
6,000	Hirakud	Mahandi River, India	180	*
5,825	Denison	Red River, Okla.-Tex.	165	1944
5,407	Bull Shoals	White River, Ark.	278	1953
5,000	Presidente Alemán	Rio Tonto, Mex.	200	1955
4,500	Shasta	Sacramento River, Calif.	602	1945
4,407	Gatun	Chagres River, Panama Canal Zone	115	1912
4,085	Falcon	Rio Grande, Tex.-Mex.	128	1953
4,060	Aswan	Nile River, Egypt	174	1934
3,500	Hungry Horse	Flathead, S. Fk., Mont.	520	1953
3,263	Lázaro Cárdenas (El Palmito)	Nazas River, Mex.	295	1948
3,000	Salt Springs	North Fork, Mokelumne River, Calif.	345	1931
2,808	Kerr	Roanoke River, Va.	144	1951
2,600	Tungabhadra	Kistna River, India	160	1954
2,567	Norris	Clinch River, Tenn.	265	1936
2,432	Alvaro Obregón (Oviachic)	Yaqui River, Sonora, Mex.	187	1953
2,300	Saluda	Saluda River, S. C.	208	1930
2,219	Elephant Butte	Rio Grande, N. Mex.	301	1916
2,150	Mettur	Cauvery River, India	214	1934
2,092	Center Hill	Caney Fork River, Tenn.	240	1950
2,092	Canyon Ferry	Missouri River, Mont.	225	1953
2,000	Hume	Murray River, Australia	180	1936
2,000	Kingsley	North Platte River, Nebr.	162	1941
1,997	Osage (Bagnell)	Osage River, Mo.	148	1931
1,983	Norfolk	North Fork River, Ark.	230	1944
1,980	Chelsea	Gatineau River, Canada	100	1927
1,975	Pensacola	Grand River, Okla.	152	1940
1,934	Marshall Ford (Mansfield)	Colorado River, Tex.	270	1942
1,820	Davis	Colorado River, Ariz.-Nev.	200	1949
1,706	Dale Hollow	Obey River, Tenn.-Ky.	183	1943

* Under construction in 1956

Notable Modern Bridges

Length of channel span, feet	Name	Location	Type*	Year completed
4,200	GOLDEN GATE	San Francisco	S	1937
3,800	MACKINAC STRAITS	Michigan	S	1957
3,500	GEORGE WASHINGTON	New York City	S	1931
2,800	TACOMA NARROWS	Tacoma, Wash.	S	1950
2,310	TRANSBAY	San Francisco	S	1936
2,300	BRONX-WHITESTONE	New York City	S	1939
2,150	DELAWARE MEMORIAL	Near Wilmington, Del.	S	1951
2,000	WALT WHITMAN	South Philadelphia, Pa.	S	1957
1,850	AMBASSADOR	Detroit, Mich.	S	1929
1,800	QUEBEC	Near Quebec, Canada	C	1917
1,750	DELAWARE RIVER	Philadelphia, Pa.	S	1926
1,700	FORTH	Firth of Forth, Scotland	C	1889
1,652	KILL VAN KULL	Bayonne, N. J.	SA	1931
1,650	SYDNEY HARBOR	Sydney, Australia	SA	1932
1,632	BEAR MOUNTAIN	Peekskill, N. Y.	S	1924
1,600	CHESAPEAKE BAY	Near Annapolis, Md.	S	1952
1,600	WILLIAMSBURG	New York City	S	1903
1,595.5	BROOKLYN	New York City	S	1883
1,550	LIONS GATE	Vancouver, Canada	S	1939
1,500	MID-HUDSON	Poughkeepsie, N. Y.	S	1930
1,500	HOWRAH	Calcutta, India	C	1943
1,470	MANHATTAN	New York City	S	1909
1,447	ANGUS L. MACDONALD	Halifax, N. S., Canada	S	1954
1,400	TRANSBAY	Oakland, Calif.	C	1936
1,380	TRIBOROUGH	New York City	S	1936
1,240	COLOGNE-RODENKIRCHEN	Germany	S	1954
1,212	TAPPAN ZEE	Nyack, N. Y.	C	1956
1,207	ST. JOHNS	Portland, Oreg.	S	1931
1,200	LONGVIEW	Longview, Wash.	C	1930
1,200	MT. HOPE	Near Bristol, R. I.	S	1929
1,182	QUEENSBORO	New York City	C	1909
1,114	FLORIANÓPOLIS	Florianópolis, Brazil	S	1926
1,100	CARQUINEZ STRAIT	Near San Francisco	C	1927
1,097	MONTREAL HARBOR	Montreal, Canada	C	1930
1,080	DEER ISLE	Deer Isle, Me.	S	1939
1,070	RICHMOND-SAN RAFAEL	San Francisco Bay	C	1956
1,057	CINCINNATI	Cincinnati, Ohio	S	1867
1,050	COOPER RIVER	Charleston, S. C.	C	1929
1,042	NAGASAKI	Japan	SA	1955
1,034	COLOGNE-MÜLHEIM	Germany	S	1951
1,010	WHEELING	Wheeling, W. Va.	S	1849
977.5	HELL GATE	New York City	SA	1917
963	EAST ST. LOUIS	East St. Louis, Ill.	C	1950
950	RAINBOW	Niagara Falls, N. Y.	SA	1941
949	GRAND MERE	Quebec, Canada	S	1928
936	DUISBURG	Germany	S	1954
930	PEACE RIVER	Alaska Highway	S	1943
924	STORY	Queensland, Australia	C	1940
875	NATCHEZ	Natchez, Miss.	C	1940
871	BLUE WATER	Port Huron, Mich.	C	1938
866	SANDO	Sando, Sweden	CA	1943
864	SUNSHINE SKYWAY	St. Petersburg, Fla.	C	1954
856	SAVA RIVER	Belgrade, Yugoslavia	CG	1956
845	DUBUQUE	Dubuque, Iowa	CT	1943
800	KINGSTON-RHINECLIFF	Hudson River, N. Y.	CT	1956
800	THOUSAND ISLANDS	Alexandria Bay, N. Y.	S	1938
800	RIP VAN WINKLE	Catskill, N. Y.	C	1935
800	HENRY HUDSON	New York City	SA	1936

* C—Cantilever. S—Suspension. SA—Steel Arch. CA—Concrete Arch. CT—Continuous Truss. CG—Continuous Girder

Great Disasters

Earthquakes and Volcanic Eruptions

- A.D. 79 Aug. 24, ITALY: eruption of Mt. Vesuvius buried cities of Pompeii and Herculaneum, killing thousands.
- 1755 Nov. 1, PORTUGAL: one of the most severe of recorded earthquakes leveled Lisbon and was felt as far away as southern France and North Africa; between 10,000 and 20,000 killed in Lisbon alone.
- 1883 Aug. 26-28, NETHERLANDS INDIES: eruption of Krakatoa; violent explosions destroyed two-thirds of island. Sea waves occurred as far away as Cape Horn, and possibly England. Estimated 36,000 dead.
- 1902 May 8, MARTINIQUE, WEST INDIES: Mt. Pelée erupted and wiped out city of St. Pierre; 40,000 dead.
- 1906 April 18, SAN FRANCISCO: earthquake accompanied by fire razed more than 4 sq. mi.; more than 500 dead or missing; property damage about 250-300 millions.
- 1908 Dec. 28, MESSINA, SICILY: about 85,000 killed and city totally destroyed by one of most disastrous of recorded earthquakes.
- 1923 Sept. 1, JAPAN: earthquake destroyed third of Tokyo and most of Yokohama; more than 90,000 persons were killed.
- 1935 May 31, INDIA: earthquake at Quetta killed an estimated 50,000.
- 1939 Jan. 24, CHILE: earthquake razed some 50,000 sq. mi.; 30,000 persons killed.
- 1939 Dec. 27, NORTHERN TURKEY: severe quakes destroyed city of Erzingan; about 100,000 casualties.
- 1949 Aug. 5, ECUADOR: earthquake killed about 6,000 and razed 50 towns.
- 1950 Aug. 15, INDIA: second heaviest earthquake on record affected 30,000 sq. mi. in Assam; 20,000-30,000 believed killed.
- 1951 Jan. 18-21, PAPUA TERRITORY, NEW GUINEA: eruption of Mt. Lamington killed more than 3,000.
- 1954 Sept. 9, ALGERIA: about 1,500 reported dead in Northern Algerian earthquake.
- 1956 June 17, AFGHANISTAN: about 2,000 killed during 10-day series of earthquakes in vicinity of Kabul.
- 1957 July 2, NORTHERN IRAN: 1,564 reported dead in earthquake.
- 1957 July 28, MEXICO: about 60 dead in quakes centering in Mexico City and vicinity of Acapulco.
- 1957 Dec. 13-15, WESTERN IRAN: 1,392 dead in earthquake.

Floods, Avalanches and Tidal Waves

WORLD

- 1228 HOLLAND: 100,000 persons reputedly drowned by sea flood in Friesland section.
- 1642 CHINA: rebels besieging Kalfeng destroyed seawall, causing flood that drowned 300,000 inhabitants.
- 1887 CHINA: hundreds of thousands of lives were reputedly lost in Honan province in overflow of Hwang Ho River.
- 1896 JAPAN: earthquake and tidal wave at Sanriku killed 27,000.
- 1939 CHINA: floods in north; casualties estimated at 10,000,000 homeless, starved or drowned.
- 1946 ALASKA-HAWAII: series of tidal waves in Pacific originating off Alaska killed about 150 in Hawaii.
- 1947 JAPAN: floods in wake of typhoon killed about 2,000 persons on Honshu Island.
- 1948 TURKEY: hundreds of persons were drowned when two rivers in southern Turkey burst their dikes.
- 1948 CHINA: about 1,000 reported dead in floods near Foochow.
- 1950 CHINA: floods in eastern and southern China left 1,000,000 homeless and killed 500.
- 1951 ALPS: snow avalanches killed more than 200 in Alpine regions of Switzerland, Italy, France and Austria.
- 1951 MANCHURIA: floods killed 1,800; 3,000 missing.
- 1953 NORTHWEST EUROPE: storm followed by floods devastated North Sea coastal areas. Netherlands was hardest hit, with 1,794 dead.
- 1954 IRAN: flash flood reportedly killed 2,000 religious pilgrims.
- 1955 INDIA: floods in Punjab, Patiala and at Delhi reported to have killed 1,700.
- 1956 CHINA: floods in three provinces following typhoon killed more than 2,000.

UNITED STATES

- 1889 PENNSYLVANIA: more than 2,000 died in Johnstown flood.
- 1913 OHIO AND INDIANA: floods of Ohio and Indiana rivers took 730 lives.

- 1927 MISSISSIPPI VALLEY: floods inundated 20,000 sq. mi.; 700,000 were left homeless.
- 1937 MISSISSIPPI AND TRIBUTARY VALLEYS: floods in the Allegheny, Mississippi, Ohio valleys killed hundreds.

- 1954 TEXAS-MEXICO BORDER: flood of the Rio Grande river killed 50 or more persons.
- 1955 NORTHERN CALIFORNIA, OREGON: week of rains caused \$150,000,000 damage, 74 deaths.

Tornadoes, Typhoons and Hurricanes

(For tornadoes and hurricanes in the U. S., see Pages 462-64.)

WORLD

- 1864 Oct. 5, INDIA: most of Calcutta denuded by cyclone; 70,000 killed.
- 1876 Oct. 31, INDIA: cyclone, tidal wave swept 3,000 sq. mi.; 215,000 killed.
- 1882 June 6, INDIA: cyclone and tidal wave killed 100,000 in Bombay.
- 1906 CHINA: typhoon at Hong Kong killed about 10,000.
- 1930 Sept. 3, SANTO DOMINGO (now Ciudad Trujillo): hurricane killed about 2,000 and injured 6,000.
- 1934 Sept. 21, JAPAN: hurricane killed more than 4,000 on Honshu.
- 1935 Oct. 25, HAITI: hurricane, flood killed 2,000 in Jérémie and Jacmel.

- 1942 Oct. 16, INDIA: cyclone devastated Bengal; about 40,000 lives lost.
- 1949 Oct. 27, INDIA: cyclone along southeastern coast killed about 1,000.
- 1949 Oct. 31-Nov. 2, PHILIPPINES: 1,000 persons believed dead following typhoon.
- 1952 Oct. 20-22, INDO-CHINA, PHILIPPINES: typhoons killed more than 1,000 persons.
- 1953 Sept. 25, VIÊT-NAM: typhoon left about 1,000 dead.
- 1954 Sept. 26, JAPAN: typhoon off Hakodate killed 1,200-1,600.
- 1955 Sept. 19, MEXICO: Hurricane Hilda killed over 200 in Tampico area.

Fires and Explosions

WORLD

- 1666 Sept. 2, ENGLAND: "Great Fire of London" destroyed 13,200 houses, St. Paul's Church, 86 parish churches, etc. Damage 10 million pounds.
- 1812 Sept. 14, RUSSIA: fire started by Russians in Moscow after French occupation destroyed 30,800 houses.
- 1917 Dec. 6, CANADA: explosion and fire at Halifax when ammunition ship collided with a vessel; 1,500 dead.
- 1922 ASIA MINOR: more than three-fifths of Smyrna destroyed by fire following Turkish occupation.
- 1948 July 28, GERMANY: explosion in I. G. Farben Ludwigshaven works killed hundreds, injured 6,000.
- 1949 Sept. 2, CHINA: fire on Chungking waterfront killed 1,700 and gutted 10,000 buildings.
- 1955 June 11, FRANCE: crash and explosion of racing car into crowd during Grand Prix race, Le Mans, killed 82.
- 1956 Aug. 7, COLOMBIA: about 1,200 reported killed when 7 army ammunition trucks exploded at Cali.
- 1956 Aug. 8, BELGIUM: 262 died in coal mine fire at Marcinelle.
- 1958 Feb. 19, INDIA: explosion in coal mine near Asansol killed 181.
- 1958 Feb. 19, BAHREIN: British freighter *Seistan* exploded; 53 killed.

UNITED STATES

- 1835 Dec. 16, NEW YORK CITY: 530 buildings destroyed by fire.
- 1871 Oct. 8, CHICAGO: the "Chicago Fire," which started in barn, swept 2,124 acres, burned 17,450 buildings, killed 250 persons; 196 million damage.
- 1872 Nov. 9, BOSTON: fire destroyed 800 buildings; 75 million damage.
- 1903 Dec. 30, CHICAGO: Iroquois Theatre fire killed 602.
- 1904 Feb. 7, BALTIMORE, MD.: fire destroyed most of business section; 125 million damage.
- 1937 March 18, NEW LONDON, TEXAS: explosion destroyed schoolhouse; 413 children and 14 teachers killed.
- 1942 Nov. 28, BOSTON: Cocoanut Grove night club fire killed about 500.
- 1944 July 17, PORT CHICAGO, CALIF.: more than 300 killed in explosion of two ammunition ships.
- 1946 Dec. 7, ATLANTA: fire in Winecoff Hotel killed 119.
- 1947 March 25, CENTRALIA, ILL.: explosion in coal mine killed 111 miners.
- 1947 April 16-18, TEXAS CITY, TEXAS: most of city destroyed, over 500 dead following explosion on ship.
- 1951 Dec. 21, near WEST FRANKFORT, ILL.: 119 coal miners died in explosion.

- 1953 Oct. 16, BOSTON, MASS.: explosion and fire aboard U. S. aircraft carrier *Leyte* killed 37.
- 1956 Nov. 25, near SAN DIEGO, CALIF.: forest fires destroyed about 40,000 ac.; 11 killed.
- 1957 Feb. 4, near BISHOP, VA.: 37 died in coal mine blast.
- 1957 Feb. 5, RENO, NEV.: gas explosions destroyed city block; 2 died.
- 1958 April 18, OKINAWA: underwater explosion of U. S. munitions ship, sunk in World War II, killed 40 persons.
- 1958 May 22, LEONARDO, N. J.: 8 Nike Ajax guided missiles exploded; 6 Army servicemen and 4 civilians killed.

Shipwrecks (not including military or naval action)

WORLD

- 1833 May 11, LADY OF THE LAKE: bound from England to Quebec, struck iceberg; 215 perished.
- 1853 Sept. 29, ANNIE JANE: emigrant vessel off coast of Scotland; 348 persons died.
- 1912 March 5, PRINCIPE DE ASTURIAS: Spanish steamer struck rock off Sebastien Pt.; 500 drowned.
- 1912 April 15, TITANIC: sank after colliding with iceberg; 1,513 died.
- 1914 May 29, EMPRESS OF IRELAND: sank after collision in St. Lawrence River; 1,024 perished.
- 1928 Nov. 12, VESTRIS: British steamer sank in gale off Virginia; 110 persons died.
- 1931 June 14, French excursion steamer overturned in gale off St. Nazaire; approximately 450 died.
- 1939 June 1, Submarine THETIS: sank in Liverpool Bay, Eng.; 99 persons perished.
- 1942 Oct. 2, QUEEN MARY: rammed and sank a British cruiser; 338 aboard the cruiser died.
- 1948 Dec. 3, KIANGYA: Chinese refugee ship wrecked in explosion; about 1,000 believed dead.
- 1949 Jan. 27, TAIPING: Chinese liner collided with collier and both sank; at least 600 died.
- 1949 Sept. 17, NORONIC: Canadian Great Lakes cruise ship burned at Toronto dock; about 130 died.
- 1950 Jan. 12, TRUCULENT: British submarine sank in Thames estuary after collision with tanker; 64 dead.
- 1951 April 16, AFFRAY: British submarine sank in English channel; 75 dead.
- 1953 Jan. 9, CHANG TYONG-HO: South Korean ferry foundered off Pusan; 249 reported dead.
- 1953 Jan. 31, PRINCESS VICTORIA: British ferry sank in Irish Sea; 133 reported lost.
- 1953 Aug. 1, MONIQUE: French motor ship with 120 aboard disappeared in South Pacific.
- 1956 June 3, Steamship sank during monsoon in Bay of Bengal; about 200 drowned.
- 1956 July 25, ANDREA DORIA: Italian liner collided with Swedish liner *Stockholm* off Nantucket Island, Mass., sinking next day; 52, mostly passengers aboard Italian ship, dead or unaccounted for; more than 1,600 rescued.
- 1957 July 14, ESHGHABAD: Soviet ship ran aground in Caspian Sea; about 270 perished.
- 1958 March 1, Passenger ferry sank in squall in Sea of Marmara, Turkey; over 200 killed.

U. S. AND U. S. LINES

- 1865 April 27, SULTANA: boiler explosion on Mississippi River steamboat near Memphis; 1,450 killed.
- 1898 Nov. 26, CITY OF PORTLAND: Loss of 157 off Cape Cod.
- 1904 June 15, GENERAL SLOCUM: excursion steamer burned in New York Harbor; 1,021 perished.
- 1915 July 24, EASTLAND: Great Lakes excursion steamer overturned in Chicago River; 812 died.
- 1934 Sept. 8, MORRO CASTLE: about 130 killed in fire occurring off Asbury Park, N. J.
- 1939 May 23, Submarine SQUALUS: sank with 59 men off Hampton Beach, N. H.; 33 members of the crew were rescued.
- 1945 April 9, U. S. ship, loaded with aerial bombs, exploded at Bari, Italy; at least 360 killed.
- 1952 Jan. 10, FLYING ENTERPRISE: freighter sank about 35 miles off southwest England after valiant 12-day effort by captain, Henrik K. Carlsen, to save ship.
- 1952 April 26, HOBSON: minesweeper collided with aircraft carrier *Wasp* and sank during night maneuvers in mid-Atlantic; 176 persons were reported lost.
- 1954 Oct. 7, MORMACKITE: freighter capsized off Cape Henry, Va.; 37 lost.
- 1956 Sept. 15, PELAGIA: freighter sank in storm off Norway; 32 lost.

Aircraft Accidents (not including military or naval action)

WORLD

- 1921 Aug. 24, ENGLAND: ZR-2, British dirigible, broke in two on trial trip near Hull; 62 died.
- 1930 Oct. 5, FRANCE: British dirigible, R-101, crashed at Beauvais; 47 died.
- 1935 May 18, U.S.S.R.: stunt flier crashed into giant plane, the *Maxim Gorkey*; 49 killed.
- 1938 July 24, COLOMBIA: military plane crashed into grandstand during air review at Bogotá, killing 53.
- 1947 Feb. 15, COLOMBIA: Avianca airliner crashed near Bogotá; 53 persons were killed.
- 1950 March 12, near CARDIFF, WALES: crash of chartered airliner killed 80.
- 1950 Nov. 13, near GRENOBLE, FRANCE: Canadian plane carrying Holy Year pilgrims crashed; 58 dead.
- 1956 Feb. 18, near VALLETTA, MALTA: Scottish airliner crash killed 50.
- 1956 Feb. 20, near CAIRO, EGYPT: desert crash of French airliner; 52 died.
- 1956 June 20, off ASBURY PARK, N. J.: Venezuelan airliner exploded and fell into Atlantic, killing all 74 aboard.
- 1956 Dec. 9, near CHILLIWACK, B. C., CANADA: Canadian airliner crashed; all 62 aboard killed.
- 1957 March 17, near CEBU CITY, PHILIPPINES: Pres. Ramón Magsaysay and 24 others killed in crash.
- 1957 July 16, near BIAK ISLAND, NEW GUINEA: Crash of Dutch airliner killed 57.
- 1957 Aug. 11, near QUEBEC, CANADA: 79 died in crash of chartered transatlantic airliner; worst Canadian air accident to date.
- 1958 Feb. 6, near MUNICH, GERMANY: British airliner crashed and burned; 21 persons, including 7 members of Manchester soccer team, were killed.
- 1958 Aug. 14, near IRELAND: Dutch KLM Super-Constellation crashed into North Atlantic; 99 killed.
- U. S. AND U. S. LINES
- 1925 Sept. 3, CALDWELL, OHIO: U. S. dirigible *Shenandoah* broke apart, killing 14.
- 1933 April 4, NEW JERSEY COAST: U. S. dirigible *Akron* crashed into sea; 73 died.
- 1937 May 6, LAKEHURST, N. J.: German zeppelin *Hindenburg* destroyed by fire at tower mooring; 36 persons were killed.
- 1947 June 13, near LEESBURG, VA.: fifty killed in crash of airliner.
- 1947 Oct. 24, BRYCE CANYON, UTAH: airliner crashed into hillside after catching fire in midair; 52 persons were killed.
- 1949 June 7, near SAN JUAN, PUERTO RICO: crash of converted army transport into ocean killed 53; 28 rescued.
- 1949 Nov. 1, WASH., D. C.: fighter plane rammed airliner, killing 55.
- 1950 Aug. 31, near CAIRO, EGYPT: crash of U. S. airliner killed 55, including 23 Americans.
- 1951 March 23, ATLANTIC OCEAN: U. S. Air Force transport with 53 aboard disappeared.
- 1951 April 25, near KEY WEST, FLA.: Cuban airliner and U. S. Navy plane collided; 43 killed.
- 1951 June 30, ROCKY MOUNTAIN NATIONAL PARK, COLO.: airliner crash killed 50.
- 1951 Dec. 16, ELIZABETH, N. J.: nonscheduled airliner crash killed 56.
- 1952 Jan. 22, ELIZABETH, N. J.: 29 killed, including former Sec. of War Robert P. Patterson, when airliner hit apartments; 7 were on ground.
- 1952 Feb. 11, ELIZABETH, N. J.: third major air disaster in Elizabeth within 2 months fatally injured 33.
- 1952 April 11, near SAN JUAN, PUERTO RICO: airliner crashed into sea; 52 killed, 17 rescued.
- 1952 April 29, NORTH CENTRAL BRAZIL: airliner bound for New York crashed in jungle; 50 died.
- 1952 Nov. 23, near ANCHORAGE, ALASKA: Air Force transport crash; 52 killed.
- 1952 Dec. 20, MOSES LAKE, WASHINGTON: crash of Air Force "Globemaster" killed 87 servicemen, injured 28.
- 1953 Feb. 14, GULF OF MEXICO: airliner crash during storm killed 46.
- 1953 June 18, near TOKYO, JAPAN: crash of U. S. Air Force "Globemaster" killed 129 servicemen in world's worst air disaster to date.
- 1953 July 11, PACIFIC OCEAN: airliner crashed about 325 mi. east of Wake Island; 58 persons were killed.
- 1954 Oct. 31, ATLANTIC OCEAN: U. S. navy plane with 42 aboard lost.
- 1955 March 22, near HONOLULU, HAWAII: crash of U. S. navy transport plane killed 66.
- 1955 Aug. 11, near EDELWEILER, GERMANY: two U. S. troop carriers collided; 66 air force personnel killed.
- 1955 Oct. 6, near LARAMIE, WYO.: airliner hit mountain; 66 died.
- 1955 Nov. 1, near LONGMONT, COLO.: crim-

- inally placed time-bomb destroyed airliner in flight, killing 44.
- 1956 June 30, GRAND CANYON, ARIZ.: 128 died in collision of two airliners; worst commercial air disaster to date.
- 1956 July 13, near FORT DIX, N. J.: 45 of 66 aboard killed in crash of U. S. air force transport.
- 1956 Oct. 11, ATLANTIC OCEAN: U. S. Air Force plane with 59 aboard disappeared.
- 1957 Feb. 1, New YORK, N. Y.: airliner crash on Rikers Island killed 20 of 101 aboard.
- 1957 March 21, PACIFIC OCEAN: U. S. Air Force plane disappeared; 67 lost.
- 1958 Feb. 1, LOS ANGELES, CALIF.: military air transport and Navy bomber collided in flight; 47 servicemen killed.
- 1958 March 7, OKINAWA: U. S. Marine Corps transport and Marine jet fighter collided in flight; 26 killed.
- 1958 March 27, BRIDGEPORT, TEX.: 2 Air Force transports collided; 18 killed.
- 1958 April 6, near MIDLAND, MICH.: Capital Airlines Viscount plane crashed; 47 killed.
- 1958 April 21, near LAS VEGAS, NEV.: airliner and Air Force jet plane collided in flight; 49 killed.

Railroad Accidents WORLD

- 1857 March 17, DES JARDINS (SOULANGES) CANAL, CANADA: train derailed on bridge; about 60 killed.
- 1864 June 29, near BELOEIL, CANADA: about 90 killed when train ran through open switch.
- 1879 Dec. 28, DUNDEE, SCOTLAND: train blown off Tay bridge; 73 drowned.
- 1881 June 24, near CUARTLA, MEXICO: about 200 died when train fell into river.
- 1882 July 13, near TCHERNY, RUSSIA: more than 150 killed in derailment.
- 1889 June 12, near ARMAGH, IRELAND: about 80 killed in collision.
- 1891 June 14, near BASEL, SWITZERLAND: about 100 killed in collision.
- 1915 May 22, GREYNA, SCOTLAND: two passenger trains and troop train collided; 227 killed.
- 1917 Dec. 12, MODANE, FRANCE: almost 550 reported killed in derailment of troop train near mouth of Mt. Cenis tunnel.
- 1938 Dec. 25, near KISHINEV, RUMANIA: about 100 killed in collision.
- 1939 Dec. 22, near MAGDEBURG, GERMANY: more than 125 killed in collision; 99 killed in another wreck near Friedrichshafen.
- 1940 Jan. 29, OSAKA, JAPAN: 200 killed in collision.
- 1944 March 2, near SALERNO, ITALY: 521 suffocated when Italian train stalled in tunnel.
- 1949 Oct. 22, near NOWY DWOR, POLAND: more than 200 reported killed in derailment of Danzig-Warsaw express.
- 1950 April 6, near RIO DE JANEIRO, BRAZIL: train wrecked when bridge collapsed; 108 killed or missing.
- 1952 March 4, near RIO DE JANEIRO, BRAZIL: about 120 reported killed in collision of 2 trains.
- 1952 Oct. 8, HARROW-WEALDSTONE, ENGLAND: two express trains crashed into commuter train; 112 dead.
- 1953 Dec. 24, near WAIOURI, NEW ZEALAND: train plunged through bridge; 155 dead and others missing.
- 1953 Dec. 24, near SAKVICE, CZECHOSLOVAKIA: crash of two trains reported to have killed 103.
- 1954 Sept. 28, near HYDERABAD, INDIA: 137 dead when train plunged into river.
- 1956 Sept. 2, near MAHBUBNAGAR, INDIA: at least 120 killed when bridge collapsed under train.
- 1957 Sept. 1, near KENDAL, JAMAICA: about 175 killed when train plunged into ravine.
- 1957 Sept. 29, near MONTGOMERY, WEST PAKISTAN: express train crashed into standing oil train; nearly 300 killed.
- 1957 Dec. 4, ST. JOHN'S, ENGLAND: 92 killed, 187 injured as one commuter train crashed into rear of another in dense fog.

UNITED STATES

- 1943 Dec. 16, near RENNERT, N. C.: 72 killed in derailment and collision.
- 1944 Dec. 31, near OGDEN, UTAH: 48 killed in collision.
- 1946 April 25, NAPERVILLE, ILL.: at least 47 killed in collision.
- 1950 Feb. 17, ROCKVILLE CENTRE, N. Y.: head-on crash of two commuter trains killed 30.
- 1950 Nov. 22, RICHMOND HILL, N. Y.: 79 died when one commuter train crashed into rear of another.
- 1951 Feb. 6, WOODBRIDGE, N. J.: 85 died when commuter train plunged through temporary overpass.
- 1958 Sept. 15, near BAYONNE, N. J.: over 40 killed when train went through open drawbridge.

HISTORICAL AND NEWS EVENTS

FROM ANCIENT TO MODERN TIMES

Compiled by

ENCYCLOPAEDIA BRITANNICA

- Actium, Battle of** (31 B.C.). Octavius defeats Mark Anthony.
- Alexander the Great** conquers Greece, Persia, Egypt and part of India (334-323 B.C.). Major battles: Granicus (334 B.C.), Issus (333), Arbela (331).
- American Revolution** (1775-83). Outstanding events: 1775—Battle of Lexington-Concord (Apr. 19). Battle of Bunker Hill (June 17). 1776—Battle of Long Island (Aug. 27). 1777—Burgoyne surrenders at Saratoga (Oct. 17). 1781—Battle of Cowpens (Jan. 17). Battle of Yorktown (Sept. 28-Oct. 19), and British surrender by Cornwallis. 1783—Treaty signed by U. S. and Britain (Sept. 3).
- "Babylonian Captivity"** of Papacy with seat at Avignon (1309-77).
- Bacon's Rebellion** (May 10-Oct. 18, 1676). Nathaniel Bacon leads unsuccessful insurrection in Virginia because of abuses in government administration and taxation.
- Balfour Declaration** (Nov. 2, 1917) promises Jewish homeland in Palestine.
- Balkan Wars** (1912-13). Bulgaria, Serbia, Greece and Montenegro defeat Turkey; later, Bulgaria attacks Serbia and Greece and is defeated.
- Bastille destroyed** (July 14, 1789).
- Benedictine Order** founded at Monte Cassino (c. A.D. 529).
- Bible** translated by Wycliffe into English (1382-84); Douay Version published (1582 & 1609-10); King James Version published (1611).
- Black Death** (beginning c. 1347) wipes out at least one-quarter of population of Europe.
- Black Friday** (Sept. 24, 1869). Financial panic results from gold corner in U. S.
- Boer War** (1899-1902). Boers defeated by British; sign peace treaty at Pretoria (May 31, 1902).
- Boston Massacre** (Mar. 5, 1770). British soldiers fire on Boston mob, killing 3.
- Boston Tea Party** (Dec. 16, 1773). Colonials dump tea in Boston Harbor because of tea tax.
- Boxer Rebellion** (1900). Uprising by secret society in northern China against foreigners.
- Brown, John**, and 18 followers raid Harpers Ferry (Oct. 16, 1859) and seize arsenal; taken prisoners by U. S. Marines (Oct. 18); Brown hanged (Dec. 2).
- Burr-Hamilton duel**. *See* Hamilton.
- Cape-to-Cairo Railroad** completed (1918).
- Carthage** founded by Phoenicians (c. 900 B.C.); destroyed by Romans (146 B.C.).
- Châlons, Battle of** (A.D. 451). Attila the Hun defeated by Romans.
- Charlemagne** crowned Emperor of the West (A.D. 800).
- Charles I** beheaded (Jan. 30, 1649). *See also* Great Rebellion.
- Children's Crusade** (1212). About 50,000 unarmed children set out to recover Holy Sepulchre; all lost or die on the way.
- Chinese-Japanese War** (1894-95). Japan wins Formosa, Pescadores and part of southern Manchuria; Korea becomes independent (annexed by Japan 1910).
- Christianity** made official religion of Roman Empire (A.D. 330).
- Civil War, American** (1861-65). Outstanding events: 1861—First Battle of Bull Run (July 21). 1862—*Monitor* defeats *Merrimac* (Mar. 9). Battle of Antietam (Sept. 15-17). 1863—Lincoln's Emancipation Proclamation (Jan. 1). Battle of Gettysburg (July 1-3). Grant captures Vicksburg (July 4). Battle of Lookout Mountain (Nov. 23-25). 1864—Battle of the Wilderness (May 5-6). Sherman's March through Georgia (Nov. 14-Dec. 22). 1865—Lee surrenders at Appomattox (Apr. 9).
- Code Napoléon**, unified codification of French law, adopted (1804).
- Code of Hammurabi** (c. 2300 B.C.). Oldest existing written code of laws.
- Communist Manifesto** issued by Karl Marx and Friedrich Engels (1848).
- Compromise of 1850** admits California as free state; organizes Utah and New Mexico as territories without mention

- of slavery; prohibits slave trade in D. C.; returns fugitive slaves to masters; pays Texas \$10 million for her claim to New Mexico.
- Confederacy** proclaimed by seceding states (Feb. 9, 1861); Jefferson Davis named President.
- Congress of Vienna (1814-15).** European powers, under leadership of Metternich, meet to settle problems of territory and government resulting from Napoleonic Wars.
- Constantinople** founded (as Byzantium) by Greeks (c. 660 B.C.); made capital of Eastern Roman Empire by Constantine the Great (A.D. 330); captured by Turks (1453); renamed Istanbul (1930).
- Council of Nicaea (A.D. 325).** Called by Constantine the Great; establishes official creed of Christianity (Nicene Creed).
- Council of Trent (1545-64).** Called by Pope Paul III, at suggestion of Emperor Charles V, to establish Catholic Counter Reformation.
- "Coxey's Army" (March. 25-May 1, 1894).** Jacob S. Coxey leads 20,000 unemployed on Washington, D. C.
- Crimean War (1853-56).** Russia loses claim to Greek Christians under Turkish flag.
- Crucifixion of Christ (c. A.D. 29).** According to New Testament, Christ rose from the dead 2 days later.
- Crusades (1096-1291).** European Christians, in 7 periods of conflict, attempt to recover Holy Land from Moslems. *See also* Children's Crusade.
- Custer massacre (June 25, 1876).** Gen. George A. Custer and his forces killed at Battle of Little Big Horn by Sioux.
- Divine Comedy** begun by Dante (1307); probably finished in last year of his life (1321).
- Dominican Order** founded (1215).
- Dorr Rebellion (1841-42).** Thomas W. Dorris leads unsuccessful attempt to extend franchise in Rhode Island; franchise extended 1843.
- Dred Scott case (1846).** Dred Scott, Negro slave, sues for freedom on claim he has lived for a time on free soil; U. S. Supreme Court rules (Mar. 6, 1857) that Scott is not a citizen and has no standing in court.
- Dreyfus case (1894).** Capt. Alfred Dreyfus found guilty of treason in France and sentenced to Devil's Island. Finally acquitted (1906).
- Easter Rebellion (April. 24, 1916).** Irish nationalists unsuccessfully attempt to throw off British rule.
- Edict of Nantes (1598).** Extends toleration to Huguenots (French Protestants); its revocation (1685) causes widespread persecution of Huguenots.
- Evolution trial.** *See* Scopes.
- Fawkes, Guy.** *See* Gunpowder Plot.
- Feudalism,** lord-vassal social system, established throughout Europe (9th century); begins to break up (14th-15th centuries).
- Franciscan Order** founded (1210).
- Franco-Prussian War (1870-71).** France defeated by German states; loses Alsace-Lorraine.
- Freedom of press** established in America as John Peter Zenger, New York editor, is acquitted in libel case against Gov. Cosby (1735).
- French and Indian War.** *See* Seven Years' War.
- French Revolution (1789-99).** Outstanding events: 1789—Bastille destroyed (July 14). Feudal rights abolished (Aug. 4). 1792—September Massacres (Sept. 2-6). France becomes republic (Sept. 21). 1793—Louis XVI beheaded (Jan. 21); Marie Antoinette beheaded (Oct. 16). Reign of Terror (spring 1793—summer 1794). 1795—Napoleon heads army. Directory established (Oct. 27). (Revolution merges into Napoleonic Wars.)
- Gold rush** develops as gold is discovered at Sutter's Mill, near Sacramento, Calif. (Jan. 2, 1848).
- Great Rebellion (1642-49).** Civil wars in England. Charles I beheaded (Jan. 30, 1649); Cromwell establishes Commonwealth (1649).
- Great Wall of China** begun (255 B.C.).
- Gregorian Calendar** replaces Julian Calendar in Catholic countries (1582), in Britain and her Colonies (1752), in Russia (1918).
- Gunpowder Plot (1605).** Guy Fawkes, agent of conspirators against King and Parliament, seized as he is about to blow up House of Lords (Nov. 5).
- Hamilton-Burr duel (July 11, 1804)** results in Hamilton's death next day.
- Hastings, Battle of (1066).** Normans led by William the Conqueror invade England.
- Hegira (A.D. 622).** Mohammed flees from Mecca to Medina. Year I of Moslem calendar.
- Holy Alliance** formed by Russia, Austria and Prussia (Sept. 26, 1815); intended to regulate government according to Christianity but actually used for repressing political liberty.
- Holy Roman Empire** founded by Otto the Great (962); dissolved by Napoleon (1805).
- Huguenots.** *See* Edict of Nantes; St. Bartholomew Massacre.

- Hundred Years' War (1338-1453).** England loses lands in France. Major battles: Crécy (1346), Poitiers (1356), Agincourt (1415).
- Industrial Revolution begins in England (c. 1760).** Machines gradually replace hand tools, bringing about vast industrial and social changes.
- Inquisition established (c. 1233)** to combat heresy; put under state control in Spain (1480); abolished in France (1772), in Spain (1834).
- International, First (1864).** Founded in London to further world socialism; dissolved in Philadelphia (1876).
- International, Second (1889).** Founded in Paris to celebrate 100th anniversary of French Revolution.
- International, Third (1919).** Founded in Moscow as protest against inactivity of Second International; dissolved (1943). Also called *Communist International* or *Comintern*.
- Jamestown, Va.,** settled by British under Capt. John Smith (1607).
- Jerusalem destroyed by Nebuchadnezzar (586 B.C.);** returned to Jews by Cyrus (538 B.C.); captured by Titus (A.D. 70); captured by Crusaders (1099); captured by Saladin (1187).
- Jesus (Society of Jesus) founded by Ignatius of Loyola (1534).**
- Joan of Arc burned at stake (1431).**
- Justinian Code (A.D. 529).** Codification of Roman law by Byzantine Emperor Justinian.
- Kansas-Nebraska Act (1854)** abrogates Missouri Compromise; permits territories of Kansas and Nebraska local option on slavery question; results in rioting and bloodshed.
- Leopold-Loeb case (1924).** Nathan Leopold and Richard Loeb kidnap and kill Bobby Franks in Chicago (May 22); sentenced to life imprisonment (July 21); Loeb killed by fellow convict (Jan. 28, 1936); Leopold receives parole (Feb. 20, 1958).
- Lindbergh flight (May 20-21, 1927).** Charles A. Lindbergh makes first solo flight across Atlantic.
- Locarno Conferences (Oct. 1925)** seek to insure peace and preserve boundaries in Europe by mutual guarantees.
- Louis XVI beheaded (Jan. 21, 1793).** See also French Revolution.
- Magna Carta,** charter listing rights and privileges of English barons, proclaimed at Runnymede (June 15, 1215); King John forced by barons to accept it.
- Manhattan Island purchased by Peter Minuit from Indians (1626)** for trinkets worth 60 guilders (about \$24).
- Mary, Queen of Scots,** convicted in England (1586) of being accomplice in plot to murder Queen Elizabeth; beheaded (Feb. 8, 1587).
- Maximilian, Emperor of Mexico,** executed by Benito Juárez (June 19, 1867) after Napoleon III of France withdraws support of Mexican empire.
- Merrimac.** See *Monitor*.
- Mexican War (1846-1848)** ends in American victory; Treaty of Guadalupe Hidalgo signed (1848).
- Ming Dynasty (1368-1644).** Noted for great development of culture and art in China.
- Missouri Compromise (1820)** admits Maine as free state, Missouri as slave state; slavery prohibited in Louisiana Territory north of 36° 30'. See also *Kansas-Nebraska Act*.
- Monitor, Union ship,** defeats *Merrimac*, Confederate ship (Mar. 9, 1862).
- Mooney, Tom,** sentenced to death for bomb explosion in San Francisco during Preparedness Day Parade (1916); sentence commuted to life (1918); freed (1939).
- Mormonism (Church of Jesus Christ of Latter-day Saints)** founded by Joseph Smith at Fayette, N. Y. (Apr. 6, 1830).
- Moses leads Jews out of Egypt (c. 1300 B.C.).**
- Napoleonic Wars (1796-1815).** Outstanding events: 1798—Campaign in Egypt. 1805—Nelson defeats French at Battle of Trafalgar (Oct. 21). French defeat Russians and Austrians at Battle of Austerlitz (Dec. 2). 1813—French defeated in Battle of Leipzig (Oct. 16-19). 1814—Napoleon abdicates (Apr. 11); sent to Elba. 1815—Napoleon flees Elba (Feb. 26). Napoleon defeated in Battle of Waterloo (June 18). See also *Congress of Vienna*.
- Northwest Ordinance (1787).** Adopted for territory north of Ohio River. Establishes method for admitting new states; prohibits slavery in territory.
- Orthodox Eastern Church** excommunicated by Pope Leo IX (1054); schism final between Western and Eastern Churches.
- Parliament established in England (1295).**
- Peloponnesian War (431-404 B.C.).** Sparta under Lysander defeats Athens.
- Persian Wars (499-478 B.C.).** Greece defeats Persia. Major battles: Marathon (490 B.C.), Thermopylae (480), Salamis (480), Plataea (479), Mycale (479).
- Pilgrims land at Plymouth Rock (Dec. 21, 1620).**
- Plague in London ("Great Plague")** causes 68,596 deaths (1665).
- Plymouth Rock.** See *Pilgrims*.

- Poland partitioned out of existence among Prussia, Russia and Austria (1772, 1793, 1795).
- Pony Express (1860-61). Between St. Joseph, Mo., and Sacramento, Calif.
- Pullman strike (June-July 1894). Strike smashed by Federal troops; Eugene V. Debs jailed for contempt.
- Punic Wars (264-146 B.C.). Romans defeat Carthaginians and destroy Carthage (146 B.C.). Major battles: Cannae (216 B.C.), Zama (202).
- Rasputin ("Black Monk"), confessor to Tsarina, murdered (Dec. 31, 1916).
- Reformation (beginning 16th century). Outstanding events: Luther nails his 95 theses to church door at Wittenberg, Germany (1517). Zwingli begins Reformation in Switzerland (1519). Luther burns papal bull and canon law (1520). Calvin publishes *Institutes of the Christian Religion* (1536). Act of Supremacy makes King head of Church of England (1534). Calvin organizes Geneva as theocratic state (1541). Knox establishes Presbyterian Church in Scotland (1560).
- Renaissance (14th-16th centuries). Revival of classical learning in Europe stimulates vigorous activity in arts, literature, humanities, etc.
- Roman Empire established under Augustus (27 B.C.); divided into Western and Eastern Empires (A.D. 395); Western Empire falls (476); Eastern Empire falls with capture of Constantinople (1453).
- Rome founded, according to legend, by Romulus (753 B.C.); burned, perhaps by Nero (A.D. 64); sacked by Visigoths under Alaric (410); sacked by Vandals under Genserik (455).
- Russo-Japanese War (1904-05). Port Arthur surrenders to Japanese (Jan. 2, 1905); Treaty of Portsmouth, N. H. (Sept. 5).
- Russo-Turkish War (1877-78). Power of Turkey in Europe broken; redivision of southeastern Europe at Congress of Berlin (June 13-July 13, 1878).
- St. Bartholomew, Massacre of (Aug. 24-Oct. 3, 1572). Some 50,000 Huguenots (French Protestants) killed in Paris and provinces at instigation of Catherine de Médici.
- St. Valentine's Day Massacre (Feb. 14, 1929). 8 members of Moran gang lined up against wall by rival gang and shot.
- Savonarola, Florentine priest and dictator, tried for sedition and heresy (1498); hanged and burned (May 23).
- Scopes Evolution Trial held at Dayton, Tenn. (July 10-21, 1925). John T. Scopes prosecuted by William Jennings Bryan for teaching evolution in Tennessee school; defended by Clarence Darrow.
- Scopes convicted but decision later set aside.
- Seven Years' War (1756-63). France, Austria, Sweden, Russia vs. England and Prussia. Clive defeats French at Battle of Plassey (1757), giving British supremacy in India; England wins Canada; Prussia retains Silesia. (American phases of war known as French and Indian War, 1754-63.)
- Shays' Rebellion (1786). Capt. Daniel Shays leads unsuccessful insurrection against Massachusetts government because of economic crisis.
- Slavery in British Empire abolished by Parliament (1833).
- Slavery introduced into American Colonies at Jamestown, Va. (1619); abolished in U. S. by 13th Amendment (1865).
- Snyder-Gray case (1927). Ruth Snyder and Judd Gray murder her husband, Albert Snyder (Mar. 20); both executed at Sing Sing (Jan. 12, 1928).
- Spanish-American War (1898). Outstanding events: U. S. battleship *Maine* blown up in Havana harbor (Feb. 15). Dewey destroys Spanish fleet at Manila (May 1). Charge of San Juan Hill (July 1). Cervera's fleet destroyed off Santiago, Cuba, by U. S. ships (July 3). Treaty of Paris (Dec. 10).
- Spanish Armada destroyed by British (1588).
- Spartacus, Roman slave and gladiator, leads unsuccessful slave insurrection (73-71 B.C.).
- Stamp Act (effective Nov. 1, 1765). First direct tax placed on America by Britain; protested by Stamp Act Congress in New York (Oct. 7-25); repealed by Britain (Mar. 18, 1766).
- Sutter's Mill. *See* Gold.
- Texan war of independence from Mexico (1836). Major battles: Alamo (Mar. 6), San Jacinto (Apr. 21).
- Thaw-White case (1906). Harry K. Thaw, millionaire, murders Stanford White, noted architect, in Madison Square Garden (June 25).
- Thirty Years' War (1618-1648). England, Holland, France, Sweden and German Protestants against Spain, Italy and German Catholics; Peace of Westphalia ends conflict, Alsace going to France, Swiss independence recognized, and German secularized states given religious freedom.
- Tours, Battle of (A.D. 732). Charles Martel defeats Moslems, checking their advance in western Europe. Also called Battle of Poitiers.
- Trojan War (c. 1200 B.C.). Greeks defeat Trojans; destroy city of Troy.

Tutankhamen's tomb discovered near Luxor by Lord Carnarvon and Howard Carter (1922).

Tweed Ring, corrupt New York political group headed by Wm. Marcy Tweed, Tammany Boss, broken up (1872); Tweed convicted (Nov. 5).

War of 1812 (1812-1815). Outstanding events: 1813—Battle of Lake Erie (Sept. 10). 1814—British burn White House at Washington (Aug. 24-25). Battle of Lake Champlain (Sept. 11). U. S. signs treaty with Britain at Ghent (Dec. 24). 1815—Battle of New Orleans (Jan. 8). (Slowness of communications was responsible for continuation of hostilities after treaty.)

Wars of the Roses (1455-85). House of York (white rose) against House of Lancaster (red rose). Richard III slain at Battle of Bosworth Field (1485); Tudor line started by Henry VII.

Whisky Insurrection (July-Nov. 1794). Farmers in western Pennsylvania revolt unsuccessfully against excise tax of 1791.

Witch trials in Salem, Mass., result in death sentences for 19 women by Judge Samuel Sewall (1692).

Woman suffrage first granted in U. S. by Wyoming Territory (1869).

World War I (1914-18). Central Powers (Austria-Hungary, Germany, Bulgaria, Turkey) vs. Allies (U. S., Britain, France, Russia, Belgium, Serbia, Greece, Rumania, Montenegro, Portugal, Italy, Japan). Outstanding events: 1914—Austria declares war on Serbia (July 28). Germany declares war on Russia (Aug. 1) and on France (Aug. 3). Germany invades Belgium (Aug. 4). Britain declares war on Germany (Aug. 4). Germans defeat Russians at Tannenberg, East Prussia (Aug. 31). First Battle of the Marne (Sept. 5-12). 1915 Dardanelles campaign against Turkey fails. 1916—Battle of Jutland (May 31). Battles of the Somme (July-Nov.). Germans turned back at Verdun (Sept. 3). Rumania overrun by Central Powers; fall of Bucharest (Dec. 6). 1917—Germany begins unrestricted submarine warfare. U. S. declares war (Apr. 6). Battle of Caporetto (Oct. 24-Dec. 26). 1918—Second Battle of the Somme (Aug. 21-Sept. 3). Third Battle of the Aisne (May 27-June 6). Second Battle of the Marne (July 15-Aug. 7). U. S. troops take St. Mihiel (Sept. 13). Battle of the Meuse-Argonne (Sept. 20-Nov. 11). Allies break Hindenburg line (Oct. 5). Armistice signed (Nov. 11).

Zenger case. *See* Freedom of press.

Firsts in America

Occasionally other sources may differ with this list. Our selection is based on our editorial judgment.

Admiral in U. S. Navy: David Glasgow Farragut, 1866.

Air-mail route, first transcontinental: Between New York City and San Francisco, 1920.

Assembly, representative: House of Burgesses, founded in Virginia, 1619.

Bank established: Bank of North America, Philadelphia, 1781.

Birth in America of English parents: Virginia Dare, born Roanoke Island, N. C., 1587.

Botanic garden: Established by John Bartram in Philadelphia, 1728. (Oldest existing one was established in Cambridge, Mass., in 1807.)

Cartoon, colored: "The Yellow Kid," by Richard Outcault, in *New York World*, 1895.

College to confer degrees on women: Oberlin (Ohio) College, 1841.

College to establish coeducation: Oberlin (Ohio) College, 1833.

Electrocution of a criminal: William Kemmler in Auburn Prison, Auburn, N. Y., Aug. 6, 1890.

Five and Ten Cents Store: Founded by Frank Woolworth, Utica, N. Y., 1879 (moved to Lancaster, Pa., same year).

Fraternity: Phi Beta Kappa; founded Dec. 5, 1776, at College of William and Mary.

Law to be declared unconstitutional by U. S. Supreme Court: Judiciary Act of 1789. Case: *Marbury vs. Madison*, 1803.

Library, circulating: Philadelphia, 1731.

Newspaper published for a continuous period: *The Boston News-Letter*, April, 1704.

Newspaper, illustrated daily: *New York Daily Graphic*, 1873.

Newspaper published daily: *Pennsylvania Packet and General Advertiser*, Philadelphia, Sept., 1784.

Newsreel: Pathé Frères of Paris, in 1910, circulated a weekly issue of their *Pathé Journal*.

Oil well, commercial: Titusville, Pa., 1859.

Panel quiz show on radio: *Information Please*, May 17, 1938.

Postage stamps issued: 1847.

President pro tempore of the U. S. Senate: John Langdon, of New Hampshire, 1789.

Railroad, transcontinental: Central Pacific and Union Pacific railroads joined near Ogden, Utah, May 10, 1869.

Savings bank: The Provident Institute for Savings, Boston, 1816.

Science museum: Founded by Charleston (S. C.) Library Society, 1773.

Skyscraper: Home Insurance Co., Chicago, 1885 (10 floors, 2 added later).

Slaves brought into America: At Jamestown, Va., 1619, from a Dutch ship.

Sorority: Kappa Alpha Theta, at De Pauw University, 1870.

State to abolish capital punishment: Michigan, 1847.

State to enter Union after original 13: Vermont, 1791.

State to ratify U. S. Constitution: Delaware, Dec. 7, 1787.

Steam-heated building: Eastern Hotel, Boston, 1845.

Steam railroad (carried passengers and freight): Baltimore & Ohio, 1830.

Strike on record by union: Journeymen Printers, New York, 1776.

Subway: Opened in Boston, 1897.

"Tabloid" picture newspaper: *The Illustrated Daily News* (now *The Daily News*), New York City, 1919.

Vaudeville theater: Gaiety Museum, Boston, 1883.

Woman cabinet member: Frances Perkins, Secretary of Labor, 1933.

Woman candidate for President: Belva Ann Bennett Lockwood, National Equal Rights party, 1884.

Woman doctor of medicine: Elizabeth Blackwell; received M.D. from Geneva Medical College of Western New York, 1849.

Woman elected governor of a state: Mrs. Nellie Tayloe Ross, Wyoming, 1925.

Woman elected to U. S. Senate: Mrs. Hattie Caraway, Arkansas; elected Nov. 1932.

Woman graduate of law school: Mrs. Ada H. Kepley, Union College of Law, Chicago, 1870.

Woman member of U. S. House of Representatives: Jeannette Rankin; elected Nov. 1916.

Woman member of U. S. Senate: Mrs. Rebecca Latimer Felton of Georgia; appointed Oct. 3, 1922.

Woman suffrage granted: Wyoming Territory, 1869.

Written constitution: *Fundamental Orders of Connecticut*, 1639.

Zoo: Philadelphia, 1874.

Societies and Foundations

Source: Questionnaires to Societies and Foundations.

AMERICAN BIBLE SOCIETY: Founded 1816 to translate, publish and encourage wider distribution of Holy Scriptures.

AMERICAN RED CROSS: Founded 1881. Program includes services to armed forces and their families, disaster relief, and other health, safety, and welfare activities.

BOY SCOUTS OF AMERICA: Founded 1910. Purpose is to promote character development, citizenship training and physical fitness for boys.

CAMP FIRE GIRLS, INC.: Founded 1910, to perpetuate spiritual ideals of the home and to stimulate and aid habits making for health and character. Educational-recreational program available to all girls from 7 to 18.

CARNEGIE CORPORATION OF NEW YORK: Founded 1911 by Andrew Carnegie to advance knowledge and understanding in U. S. and certain British Commonwealth areas. Grants awarded to colleges and organizations engaged in research. Assets (1957): \$192,000,000 (cost basis).

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE: Founded 1910 by Andrew Carnegie. To work toward international peace. Assets (June 30, 1957): \$19,803,188.

COMMONWEALTH FUND: Founded 1918 by Mrs. Stephen V. Harkness. Purpose is to promote health through grants for medical education, research, etc. Endowment (1958): \$77,000,000.

DUKE ENDOWMENT, THE: Founded 1925 by James B. Duke. Purpose is to assist North and South Carolina philanthropic institutions, including universities, hospitals, orphanages and the Methodist Church. Assets (Dec. 31, 1956): \$142,000,000 (book value).

ELKS, BENEVOLENT AND PROTECTIVE ORDER OF: Founded 1868 to practice charity, justice, brotherly love and fidelity. Charitable expenditures (1957): \$7,000,000 (by Lodges, 1880-1937, \$132,830,121).

FIELD FOUNDATION, INC.: Founded 1940 by Marshall Field. Present purpose is to promote the welfare of children and improve intercultural and interracial relations. Assets (1957): Over \$18,000,000.

FORD FOUNDATION: Founded 1936 by Henry and Edsel Ford to advance human welfare by identifying problems of national importance and granting funds for efforts toward their solution. Assets (1957): \$748,171,313.

FREEMASONRY: Originated in England (1717); brought to America about 1730. It includes Symbolic Lodge (3 basic de-

grees), Royal Arch, Council of Royal and Select Masters, Knights Templar and Scottish Rite. It is universal in its philosophy, nonsectarian in membership.

GIRL SCOUTS OF THE U.S.A.: Founded 1912. Purpose is to help girls develop as happy, resourceful individuals.

GUGGENHEIM (JOHN SIMON) MEMORIAL FOUNDATION: Founded 1925. Purpose is to offer fellowships in all fields. Endowment (1957): \$45,000,000.

INFANTILE PARALYSIS, NATIONAL FOUNDATION FOR: Founded 1938 by Franklin D. Roosevelt, with Basil O'Connor (volunteer president) and friends to direct fight on infantile paralysis. Funds raised by "March of Dimes." Financed research resulting in development of Salk vaccine, 1953-55.

KELLOGG FOUNDATION: Founded 1930 by W. K. Kellogg. Operates by making grants supporting experimental programs in health, agricultural and educational fields. Assets (Aug. 31, 1957): \$72,683,185, book value; \$125,159,953, market value.

KIWANIS INTERNATIONAL: Founded 1915 to render service to youth, community and nation.

KNIGHTS OF COLUMBUS: Founded 1882. Purpose is to render pecuniary aid to its sick, disabled and needy members; promotes social and intellectual intercourse among its members and conducts educational, charitable, social, relief and religious work.

KNIGHTS OF PYTHIAS: Founded 1864. Purpose is to promote social and fraternal well-being of its members. Auxiliary bodies: Dramatic Order of Knights Khorassan, Junior Order of Princes of Syracuse, Order of Pythian Sisters.

LEAGUE OF WOMEN VOTERS OF THE U. S.: Founded in 1920 upon ratification of 19th Amendment to inform the electorate and increase citizen participation in government. Annual expenditure: about \$1,350,000.

LIONS CLUBS, INTERNATIONAL ASSOCIATION OF: Founded 1917. Purpose is to recognize community needs and develop means of meeting them. World's largest service club organization.

NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE: Organized 1909. It seeks equal citizenship rights for Negroes through legal action, legislation and education.

NATIONAL GEOGRAPHIC SOCIETY: Founded 1888. Purpose is to increase and diffuse geographic knowledge. Publishes monthly *National Geographic Magazine* and weekly *Geographic School Bulletins*.

ODD FELLOWS, INDEPENDENT ORDER OF: Introduced into U. S. in 1819. Purpose is to promote social relations and to provide benefits for members.

ROCKEFELLER FOUNDATION: Founded 1913 to promote well-being of mankind throughout world; makes grants to agencies in fields of medical education and public health, biological and medical research, agriculture, social sciences and humanities. Principal Fund (Dec. 31, 1957): \$492,365,671, market value.

ROTARY INTERNATIONAL: Founded 1905. Purpose is to foster the ideal of service in business and community life and promote international understanding.

RUSSELL SAGE FOUNDATION: Founded 1907 by Mrs. Russell Sage to improve social and living conditions in U. S. Program emphasizes social science research. Assets (Sept. 1957): \$23,117,000.

SLOAN FOUNDATION, INC., ALFRED P.: Founded 1934 by Alfred P. Sloan, Jr. Purpose is to increase and spread economic knowledge and promote basic research in science and other subjects. Assets (Dec. 1957): \$135,158,000.

TWENTIETH CENTURY FUND: Founded 1919 by Edward A. Filene to promote research and public education on economic and social problems. Assets (Dec. 31, 1957): \$12,951,573.

YOUNG MEN'S CHRISTIAN ASSOCIATION: Founded 1844. Purpose is to improve spiritual, social, recreational and physical lives of young people. Endowment (1957): \$68,615,800.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION OF THE U.S.A.: Founded 1858 to advance physical, social, intellectual and spiritual interests of young women and to build fellowship of women devoted to pursuit of Christian ideals.

Longest Broadway Runs

As of Aug. 1958. Source: *Variety*.

1. Life with Father	3,224
2. Tobacco Road	3,182
3. Abie's Irish Rose	2,327
4. Oklahoma!	2,248
5. South Pacific	1,925
6. Harvey	1,775
7. Born Yesterday	1,642
8. The Voice of the Turtle	1,557
9. Arsenic and Old Lace	1,444
10. Helzapoppin'	1,404
11. Angel Street	1,295

Top Grossing Films*

As of Jan. 8, 1958. Source: *Variety*.

1. Gone With the Wind	\$33,500,000
2. Ten Commandments	18,500,000
3. The Robe	17,500,000
4. 80 Days Around the World	16,200,000
5. Greatest Show on Earth ..	12,800,000
6. From Here to Eternity ...	12,500,000
7. This is Cinerama	12,500,000
8. White Christmas	12,000,000
9. Giant	12,000,000
10. Duel in the Sun	11,800,000
11. Best Years of Our Lives ..	11,800,000

* Figures are rentals collected by film distributors from exhibitors in U.S. and Canada.

SPORTS ORGANIZATIONS AND INFORMATION BUREAUS

- AMATEUR ATHLETIC UNION OF THE U. S. 233 Broadway, New York 7, N. Y.
- AMATEUR BICYCLE LEAGUE OF AMERICA. 2320 Grand Ave., New York 68, N. Y.
- AMATEUR FENCERS LEAGUE OF AMERICA. 70 E. 45th St., New York 17, N. Y.
- AMATEUR HOCKEY ASSN. OF THE U. S. Madison Square Garden, 307 W. 49th St., New York 19, N. Y.
- AMATEUR SKATING UNION OF THE U. S. 2963 N. 90th St., Milwaukee 10, Wis.
- AMATEUR SOFTBALL ASSN. OF AMERICA. Suite 401, 11 Hill St., Newark 2, N. J.
- AMATEUR TRAPSHOOTING ASSN. OF AMERICA. Vandalia, Ohio
- AMERICAN AMATEUR BASEBALL CONGRESS. Box 44, Battle Creek, Mich.
- AMERICAN BADMINTON ASSN. 905 So. Los Robles Ave., Pasadena, Calif.
- AMERICAN BOWLING CONGRESS. 1572 E. Capitol Drive, Milwaukee 11, Wis.
- AMERICAN CANOE ASSN. 292 Bank St., Seymour, Conn.
- AMERICAN HOCKEY LEAGUE. Box 190, Hempstead, N. Y.
- AMERICAN HORSE SHOWS ASSN. 90 Broad St., New York 4.
- AMERICAN KENNEL CLUB. 221 Fourth Ave., New York 3.
- AMERICAN LAWN BOWLING ASSN. 48 Maynard St., Providence 9, R. I.
- AMERICAN LEAGUE SERVICE BUREAU (Baseball). 310 S. Michigan Ave., Chicago 4, Ill.
- AMERICAN MOTORCYCLE ASSOCIATION. 106 Buttles Ave., Columbus 8, Ohio
- AMERICAN POWER BOAT ASSN. 2534 St. Aubin Ave., Detroit 7, Mich.
- AMERICAN RACING DRIVERS CLUB (midget auto racing). 309 West 50th St., New York 19, N. Y.
- AMERICAN ROQUE LEAGUE, 5439 Vanderbilt Ave., Dallas 6, Texas.
- AMERICAN WATER SKI ASSN. 307 N. Michigan Ave., Chicago 1, Ill.
- BASEBALL COMMISSIONER FORD C. FRICK. 30 Rockefeller Plaza, New York 20, N. Y.
- BILLIARD CONGRESS OF AMERICA. 921 Edison Bldg., Toledo, Ohio.
- BOWLING PROPRIETORS' ASSN. OF AMERICA. 185 N. Wabash Ave., Chicago 1, Ill.
- EASTERN COLLEGE ATHLETIC CONFERENCE. Hotel Manhattan, 8th Ave. & 45th St., New York 36, N. Y.
- ELIAS BASEBALL BUREAU, 11 West 42d St., New York 36
- FISH AND WILDLIFE SERVICE. Dept. of the Interior, Washington 25, D. C.
- GREATER NEW YORK RACING ASSN. SERVICE BUREAU, 300 Park Ave., New York 22, N. Y.
- INTERNATL. AMATEUR ATHLETIC FEDERATION. Halton House, 23 Holborn, London, E. C. 1, England.
- INTERNATIONAL GAME FISH ASSN. Alfred I. duPont Bldg., Miami 32, Fla.
- THE JOCKEY CLUB, 300 Park Ave., New York 22, N. Y.
- LITTLE LEAGUE BASEBALL. Williamsport, Pa.
- NATL. ARCHERY ASSN. OF THE U. S. 20212 Bayview Ave., Santa Ana, Calif.
- NATL. ASSN. OF AMATEUR OARSMEN. 119 Heller Parkway, Newark 4, N. J.
- NATL. ASSN. OF ANGLING AND CASTING CLUBS. P. O. Box 51, Nashville, Tenn.
- NATL. ASSN. OF PROFESSIONAL BASEBALL LEAGUES (Minors). 720 E. Broad St., Columbus 15, Ohio
- NATL. ASSN. OF STATE RACING COMMISSIONERS. Box 156, Lexington, Ky.
- NATL. BASEBALL CONGRESS. Wichita 1, Kans.
- NATL. BASKETBALL ASSN. Empire State Bldg., N. Y. 1
- NATL. BOXING ASSN. Room 2053, New Municipal Center, Washington 1, D. C.
- NATL. COLLEGIATE ATHLETIC ASSN. Fairfax Bldg., 11th and Baltimore, Kansas City 6, Mo.
- NATL. DUCK PIN BOWLING CONGRESS. 1420 New York Ave., N.W., Washington 5, D. C.
- NATL. FOOTBALL LEAGUE. One Bala Ave., Bala Cynwyd, Pa.
- NATL. HOCKEY LEAGUE. Sun Life Bldg., Montreal, Quebec.
- NATL. HORSESHOE PITCHERS ASSN. 15316 Cabel Ave., Bellflower, Calif.
- NATL. LEAGUE SERVICE BUREAU (Baseball). Carew Tower, Cincinnati 2, Ohio
- NATL. RIFLE ASSN. OF AMERICA. 1600 Rhode Island Ave., Washington 6, D. C.
- NATL. SKEET SHOOTING ASSN. 3409 Oak Lawn Ave., Dallas 19, Texas.
- NATL. SKI ASSN. 1130-16th St., Denver 4, Colo.
- NEW YORK STATE ATHLETIC (BOXING) COMMISSION 226 W. 47th St., New York 36, N. Y.
- NORTH AMERICAN YACHT RACING UNION. 37 West 44th St., New York 18, N. Y.
- PROFESSIONAL GOLFERS' ASSN. OF AMERICA. Broadway and Main St., Dunedin, Fla.
- PROFESSIONAL HORSEMEN'S ASSN. 716 Madison Ave., New York City.
- PROFESSIONAL LAWN TENNIS ASSN. OF THE U. S. 146 E. 54th St., New York 22, N. Y.
- ROLLER SKATING RINK OPERATORS ASSN. OF AMERICA. 625 W. Seven Mile Rd., Detroit 3, Mich.
- THOROUGHbred RACING ASSNS. OF THE U. S. 925 Chrysler Bldg., New York 17, N. Y.
- U. S. AMATEUR ROLLER SKATING ASSN. 120 West 42d St., New York 18, N. Y.
- U. S. CHESS FEDERATION. 208 S. La Salle St., Chicago 4, Ill.
- U. S. FIELD HOCKEY ASSN. 24 Park Place, Rockville Centre, N. Y.
- U. S. FIGURE SKATING ASSN. Rm. 505, 30 Huntington Ave., Boston, Mass.
- U. S. GOLF ASSN. 40 E. 38th St., New York 16, N. Y.
- U. S. HANDBALL ASSN. 505 No. Michigan Ave., Chicago 11.
- U. S. LAWN TENNIS ASSN. 120 Broadway, New York 5, N. Y.
- U. S. OLYMPIC ASSN. Biltmore Hotel, New York 17, N. Y.
- U. S. POLO ASSN. 250 Park Ave., New York 17, N. Y.
- U. S. SOCCER FOOTBALL ASSN. 320 Fifth Ave., New York 1.
- U. S. SQUASH RACQUETS ASSN. 15 Broad St., New York 5, N. Y.
- U. S. TABLE TENNIS ASSN. 210 Saturn Drive, North Star, R.F.D. 3, Newark, Del.
- U. S. TROTting ASSN. 1349 E. Broad St., Columbus 5, Ohio.
- U. S. VOLLEYBALL ASSN. Rm. 1705, 291 Broadway, New York 7, N. Y.
- WESTERN HOCKEY LEAGUE. Grosvenor House, 500 Wall St. Seattle 1, Wash.
- WOMAN'S INTERNATIONAL BOWLING CONGRESS. 694 S. High St., Columbus 6, Ohio.

SPORTS



For 1958 sports champions and records,
see special section beginning on Page 905.

BASEBALL

THE POPULAR TRADITION that baseball was invented by Abner Doubleday at Cooperstown, N. Y., in 1839, has been enshrined in the Hall of Fame and National Museum of Baseball erected in that town, but research has proved that a game called "Base Ball" was played in this country and England before 1839. However, the first team baseball as we know it was played at the Elysian Fields, Hoboken, N. J., on June 19, 1846, between the Knickerbockers and the New York Nine. There was a gradual growth of baseball and an improvement of equipment and playing skill in the next fifty years. Soldiers returning home from the Civil War spread over the country the game they had learned to play in camp.

Historians have it that the first pitcher to throw a curve was William A. (Candy) Cummings in 1867. The Cincinnati Red Stockings were the first all-professional team and in 1869 they played 64 games without a loss. The standard ball of the

same size and weight, still the rule, was adopted in 1872. The first catcher's mask was worn in 1875. The National League was organized in 1876. The first chest protector was donned in 1885. The three-strike rule was put on the books in 1887 and the four-ball ticket to first base came in 1889. The pitching distance, formerly shorter, was lengthened to 60 feet 6 inches in 1893 and the rules have been only slightly modified since that time.

The American League, under the vigorous leadership of B. B. Johnson, blossomed forth as a major league in 1901. Judge Kenesaw Mountain Landis, by action of the two major leagues, became Commissioner of Baseball in 1921 and, upon his death (1944), Albert B. Chandler, former United States Senator from Kentucky, was elected to that office (1945). Chandler failed to obtain a new contract, and he was succeeded by Ford C. Frick (1951), the National League president.

PROFESSIONAL BASEBALL GOVERNMENT

NATIONAL LEAGUE—AMERICAN LEAGUE—NATIONAL ASSOCIATION

Ford C. Frick, Commissioner

Charles M. Segar, Secretary-Treasurer

30 Rockefeller Plaza, New York 20, N. Y.

NATIONAL LEAGUE

Warren C. Giles

President-Secretary-Treasurer

Office: Carew Tower,

Cincinnati 2, Ohio

Service Bureau: Dave Grote, Manager

AMERICAN LEAGUE

Will Harridge

President-Secretary-Treasurer

Office: 310 South Michigan Blvd.,

Chicago 4, Ill.

Service Bureau: Earl J. Hilligan, Manager

NATIONAL ASSOCIATION

George M. Trautman

President-Treasurer

Carl Lundquist

Director of Public Relations

720 East Broad St., Columbus 15, Ohio

Baseball Statistics

Source: *The Little Red Book of Baseball*, published by The Elias Baseball Bureau, New York City.

Record of World Series Games

Figures in parentheses indicate number of victories for each club. Pitchers named are winner and loser, respectively.

1903—BOSTON A. L. (5) vs. PITTSBURGH N. L. (3)

Managers—J. J. Collins, Boston; F. C. Clarke, Pittsburgh

Oct. 1—Pittsburgh (Phillippe).....	7	Boston (Young).....	3	At Boston
Oct. 2—Boston (Dinneen).....	3	Pittsburgh (Leever).....	0	At Boston
Oct. 3—Pittsburgh (Phillippe).....	4	Boston (Hughes).....	2	At Boston
Oct. 6—Pittsburgh (Phillippe).....	5	Boston (Dinneen).....	4	At Pittsburgh
Oct. 7—Boston (Young).....	11	Pittsburgh (Kennedy).....	2	At Pittsburgh
Oct. 8—Boston (Dinneen).....	6	Pittsburgh (Leever).....	3	At Pittsburgh
Oct. 10—Boston (Young).....	7	Pittsburgh (Phillippe).....	3	At Pittsburgh
Oct. 13—Boston (Dinneen).....	3	Pittsburgh (Phillippe).....	0	At Boston

1904—No Series

1905—NEW YORK N. L. (4) vs. PHILADELPHIA A. L. (1)

Managers—John J. McGraw, New York; Connie Mack, Philadelphia.

Oct. 9—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia
Oct. 10—Philadelphia (Bender).....	3	New York (McGinnity).....	0	At New York
Oct. 12—New York (Mathewson).....	9	Philadelphia (Coakley).....	0	At Philadelphia
Oct. 13—New York (McGinnity).....	1	Philadelphia (Plank).....	0	At New York
Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	0	At New York

1906—CHICAGO A. L. (4) vs. CHICAGO N. L. (2)

Managers—Fielder Jones, Chicago A. L.; Frank L. Chance, Chicago N. L.

Oct. 9—Chicago A (Altrock).....	2	Chicago N (Brown).....	1	At Chicago Nat. Pk.
Oct. 10—Chicago N (Reulbach).....	7	Chicago A (White).....	1	At Chicago Am. Pk.
Oct. 11—Chicago A (Walsh).....	3	Chicago N (Pfiester).....	0	At Chicago Nat. Pk.
Oct. 12—Chicago N (Brown).....	1	Chicago A (Altrock).....	0	At Chicago Am. Pk.
Oct. 13—Chicago A (Walsh).....	8	Chicago N (Pfiester).....	6	At Chicago Nat. Pk.
Oct. 14—Chicago A (White).....	8	Chicago N (Brown).....	3	At Chicago Am. Pk.

1907—CHICAGO N. L. (4) vs. DETROIT A. L. (0)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 8—Chicago (tie).....	3	Detroit (tie).....	3	At Chicago (12 Inn.)
Oct. 9—Chicago (Pfiester).....	3	Detroit (Mullin).....	1	At Chicago
Oct. 10—Chicago (Reulbach).....	5	Detroit (Siever).....	1	At Chicago
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Detroit
Oct. 12—Chicago (Brown).....	2	Detroit (Mullin).....	0	At Detroit

1908—CHICAGO N. L. (4) vs. DETROIT A. L. (1)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 10—Chicago (Brown).....	10	Detroit (Summers).....	6	At Detroit
Oct. 11—Chicago (Overall).....	6	Detroit (Donovan).....	1	At Chicago
Oct. 12—Detroit (Mullin).....	8	Chicago (Pfiester).....	3	At Chicago
Oct. 13—Chicago (Brown).....	3	Detroit (Summers).....	0	At Detroit
Oct. 14—Chicago (Overall).....	2	Detroit (Donovan).....	0	At Detroit

1909—PITTSBURGH N. L. (4) vs. DETROIT A. L. (3)

Managers—Fred C. Clarke, Pittsburgh; Hugh Jennings, Detroit.

Oct. 8—Pittsburgh (Adams).....	4	Detroit (Mullin).....	1	At Pittsburgh
Oct. 9—Detroit (Donovan).....	7	Pittsburgh (Camnitz).....	2	At Pittsburgh
Oct. 11—Pittsburgh (Maddox).....	8	Detroit (Summers).....	6	At Detroit
Oct. 12—Detroit (Mullin).....	5	Pittsburgh (Leifield).....	0	At Detroit
Oct. 13—Pittsburgh (Adams).....	8	Detroit (Summers).....	4	At Pittsburgh
Oct. 14—Detroit (Mullin).....	5	Pittsburgh (Willis).....	4	At Detroit
Oct. 16—Pittsburgh (Adams).....	8	Detroit (Donovan).....	0	At Detroit

1910—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Frank L. Chance, Chicago.

Oct. 17—Philadelphia (Bender).....	4	Chicago (Overall).....	1	At Philadelphia
Oct. 18—Philadelphia (Coombs).....	9	Chicago (Brown).....	3	At Philadelphia
Oct. 20—Philadelphia (Coombs).....	12	Chicago (McIntire).....	5	At Chicago
Oct. 22—Chicago (Brown).....	4	Philadelphia (Bender).....	3	At Chicago (10 inn.)
Oct. 23—Philadelphia (Coombs).....	7	Chicago (Brown).....	2	At Chicago

1911—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (2)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 14—New York (Mathewson).....	2	Philadelphia (Bender).....	1	At New York
Oct. 16—Philadelphia (Plank).....	3	New York (Marquard).....	1	At Philadelphia
Oct. 17—Philadelphia (Coombs).....	3	New York (Mathewson).....	2	At New York (11 inn.)
Oct. 24—Philadelphia (Bender).....	4	New York (Mathewson).....	2	At Philadelphia
Oct. 25—New York (Crandall).....	4	Philadelphia (Plank).....	3	At New York (10 inn.)
Oct. 26—Philadelphia (Bender).....	13	New York (Ames).....	2	At Philadelphia

1912—BOSTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—J. Garland Stahl, Boston; John J. McGraw, New York.

Oct. 8—Boston (Wood).....	4	New York (Tesreau).....	3	At New York
Oct. 9—Boston (tie).....	6	New York (tie).....	6	At Boston (11 inn.)
Oct. 10—New York (Marquard).....	2	Boston (O'Brien).....	1	At Boston
Oct. 11—Boston (Wood).....	3	New York (Tesreau).....	1	At New York
Oct. 12—Boston (Bedient).....	2	New York (Mathewson).....	1	At Boston
Oct. 14—New York (Marquard).....	5	Boston (O'Brien).....	2	At New York
Oct. 15—New York (Tesreau).....	11	Boston (Wood).....	4	At Boston
Oct. 16—Boston (Wood).....	3	New York (Mathewson).....	2	At Boston (10 inn.)

1913—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (1)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 7—Philadelphia (Bender).....	6	New York (Marquard).....	4	At New York
Oct. 8—New York (Mathewson).....	3	Philadelphia (Plank).....	0	At Philadelphia (10 inn.)
Oct. 9—Philadelphia (Bush).....	8	New York (Tesreau).....	2	At New York
Oct. 10—Philadelphia (Bender).....	6	New York (Demaree).....	5	At Philadelphia
Oct. 11—Philadelphia (Plank).....	3	New York (Mathewson).....	1	At New York

1914—BOSTON N. L. (4) vs. PHILADELPHIA A. L. (0)

Managers—George T. Stallings, Boston; Connie Mack, Philadelphia.

Oct. 9—Boston (Rudolph).....	7	Philadelphia (Bender).....	1	At Philadelphia
Oct. 10—Boston (James).....	1	Philadelphia (Plank).....	0	At Philadelphia
Oct. 12—Boston (James).....	5	Philadelphia (Bush).....	4	At Boston (12 inn.)
Oct. 13—Boston (Rudolph).....	3	Philadelphia (Shawkey).....	1	At Boston

1915—BOSTON A. L. (4) vs. PHILADELPHIA N. L. (1)

Managers—William Carrigan, Boston; Patrick J. Moran, Philadelphia.

Oct. 8—Philadelphia (Alexander).....	3	Boston (Shore).....	1	At Philadelphia
Oct. 9—Boston (Foster).....	2	Philadelphia (Mayer).....	1	At Philadelphia
Oct. 11—Boston (Leonard).....	2	Philadelphia (Alexander).....	1	At Boston
Oct. 12—Boston (Shore).....	2	Philadelphia (Chalmers).....	1	At Boston
Oct. 13—Boston (Foster).....	5	Philadelphia (Rixey).....	4	At Philadelphia

1916—BOSTON A. L. (4) vs. BROOKLYN N. L. (1)

Managers—William Carrigan, Boston; Wilbert J. Robinson, Brooklyn.

Oct. 7—Boston (Shore).....	6	Brooklyn (Marquard).....	5	At Boston
Oct. 9—Boston (Ruth).....	2	Brooklyn (Smith).....	1	At Boston (14 inn.)
Oct. 10—Brooklyn (Coombs).....	4	Boston (Mays).....	3	At Brooklyn
Oct. 11—Boston (Leonard).....	6	Brooklyn (Marquard).....	2	At Brooklyn
Oct. 12—Boston (Shore).....	4	Brooklyn (Pfeffer).....	1	At Boston

1917—CHICAGO A. L. (4) NEW YORK N. L. (2)

Managers—Clarence H. Rowland, Chicago; John J. McGraw, New York.

Oct. 6—Chicago (Cicotte).....	2	New York (Sallee).....	1	At Chicago
Oct. 7—Chicago (Faber).....	7	New York (Anderson).....	2	At Chicago
Oct. 10—New York (Benton).....	2	Chicago (Cicotte).....	0	At New York
Oct. 11—New York (Schupp).....	5	Chicago (Faber).....	0	At New York
Oct. 13—Chicago (Faber).....	8	New York (Sallee).....	5	At Chicago
Oct. 15—Chicago (Faber).....	4	New York (Benton).....	2	At New York

1918—BOSTON A. L. (4) vs. CHICAGO N. L. (2)

Managers—E. G. Barrow, Boston; Fred L. Mitchell, Chicago.

Sept. 5—Boston (Ruth).....	1	Chicago (Vaughn).....	0	At Chicago
Sept. 6—Chicago (Tyler).....	3	Boston (Bush).....	1	At Chicago
Sept. 7—Boston (Mays).....	2	Chicago (Vaughn).....	1	At Chicago
Sept. 9—Boston (Ruth).....	3	Chicago (Douglas).....	2	At Boston
Sept. 10—Chicago (Vaughn).....	3	Boston (Jones).....	0	At Boston
Sept. 11—Boston (Mays).....	2	Chicago (Tyler).....	1	At Boston

1919—CINCINNATI N. L. (5) vs. CHICAGO A. L. (3)

Managers—Patrick J. Moran, Cincinnati; William Gleason, Chicago.

Oct. 1—Cincinnati (Ruether).....	9	Chicago (Cicotte).....	1	At Cincinnati
Oct. 2—Cincinnati (Sallee).....	4	Chicago (Williams).....	2	At Cincinnati
Oct. 3—Chicago (Kerr).....	3	Cincinnati (Fisher).....	0	At Chicago
Oct. 4—Cincinnati (Ring).....	2	Chicago (Cicotte).....	0	At Chicago
Oct. 6—Cincinnati (Eller).....	5	Chicago (Williams).....	0	At Chicago
Oct. 7—Chicago (Kerr).....	5	Cincinnati (Ring).....	4	At Cincinnati
Oct. 8—Chicago (Cicotte).....	4	Cincinnati (Sallee).....	1	At Cincinnati
Oct. 9—Cincinnati (Eller).....	10	Chicago (Williams).....	5	At Chicago (10 inn.)

1920—CLEVELAND A. L. (5) vs. BROOKLYN N. L. (2)

Managers—Tris Speaker, Cleveland; Wilbert J. Robinson, Brooklyn.

Oct. 5—Cleveland (Coveleskie).....	3	Brooklyn (Marquard).....	1	At Brooklyn
Oct. 6—Brooklyn (Grimes).....	3	Cleveland (Bagby).....	0	At Brooklyn
Oct. 7—Brooklyn (Smith).....	2	Cleveland (Caldwell).....	1	At Brooklyn
Oct. 9—Cleveland (Coveleskie).....	5	Brooklyn (Cadore).....	1	At Cleveland
Oct. 10—Cleveland (Bagby).....	8	Brooklyn (Grimes).....	1	At Cleveland
Oct. 11—Cleveland (Mails).....	1	Brooklyn (Smith).....	0	At Cleveland
Oct. 12—Cleveland (Coveleskie).....	3	Brooklyn (Grimes).....	0	At Cleveland

1921—NEW YORK N. L. (5) vs. NEW YORK A. L. (3)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 5—New York A (Mays).....	3	New York N (Nehf).....	0	At Polo Grounds
Oct. 6—New York A (Hoyt).....	3	New York N (Douglas).....	0	At Polo Grounds
Oct. 7—New York N (Barnes).....	13	New York A (Quinn).....	5	At Polo Grounds
Oct. 9—New York N (Douglas).....	4	New York A (Mays).....	2	At Polo Grounds
Oct. 10—New York A (Hoyt).....	3	New York N (Nehf).....	1	At Polo Grounds
Oct. 11—New York N (Barnes).....	8	New York A (Shawkey).....	5	At Polo Grounds
Oct. 12—New York N (Douglas).....	2	New York A (Mays).....	1	At Polo Grounds
Oct. 13—New York N (Nehf).....	1	New York A (Hoyt).....	0	At Polo Grounds

1922—NEW YORK N. L. (4) vs. NEW YORK A. L. (0)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 4—New York N (Ryan).....	3	New York A (Bush).....	2	At Polo Grounds
Oct. 5—New York N (tie).....	3	New York A (tie).....	3	At Polo Grounds (10 inn.)
Oct. 6—New York N (Scott).....	3	New York A (Hoyt).....	0	At Polo Grounds
Oct. 7—New York N (McQuillan).....	4	New York A (Mays).....	3	At Polo Grounds
Oct. 8—New York N (Nehf).....	5	New York A (Bush).....	3	At Polo Grounds

1923—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Miller J. Huggins, New York A. L.; John J. McGraw, New York N. L.

Oct. 10—New York N (Ryan).....	5	New York A (Bush).....	4	At Yankee Stadium
Oct. 11—New York A (Pennock).....	4	New York N (McQuillan).....	2	At Polo Grounds
Oct. 12—New York N (Nehf).....	1	New York A (Jones).....	0	At Yankee Stadium
Oct. 13—New York A (Shawkey).....	8	New York N (Scott).....	4	At Polo Grounds
Oct. 14—New York A (Bush).....	8	New York N (Bentley).....	1	At Yankee Stadium
Oct. 15—New York A (Pennock).....	6	New York N (Nehf).....	4	At Polo Grounds

1924—WASHINGTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—Stanley R. Harris, Washington; John J. McGraw, New York.

Oct. 4—New York (Nehf).....	4	Washington (Johnson).....	3	At Washington (12 inn.)
Oct. 5—Washington (Zachary).....	4	New York (Bentley).....	3	At Washington
Oct. 6—New York (McQuillan).....	6	Washington (Marberry).....	4	At New York
Oct. 7—Washington (Mogridge).....	7	New York (Barnes).....	4	At New York
Oct. 8—New York (Bentley).....	6	Washington (Johnson).....	2	At New York
Oct. 9—Washington (Zachary).....	2	New York (Nehf).....	1	At Washington
Oct. 10—Washington (Johnson).....	4	New York (Bentley).....	3	At Washington (12 inn.)

1925—PITTSBURGH N. L. (4) vs. WASHINGTON A. L. (3)

Managers—William B. McKechnie, Pittsburgh; Stanley R. Harris, Washington.

Oct. 7—Washington (Johnson).....	4	Pittsburgh (Meadows).....	1	At Pittsburgh
Oct. 8—Pittsburgh (Aldridge).....	3	Washington (Coveleskie).....	2	At Pittsburgh
Oct. 10—Washington (Ferguson).....	4	Pittsburgh (Kremer).....	3	At Washington
Oct. 11—Washington (Johnson).....	4	Pittsburgh (Yde).....	0	At Washington
Oct. 12—Pittsburgh (Aldridge).....	6	Washington (Coveleskie).....	3	At Washington
Oct. 13—Pittsburgh (Kremer).....	3	Washington (Ferguson).....	2	At Pittsburgh
Oct. 15—Pittsburgh (Kremer).....	9	Washington (Johnson).....	7	At Pittsburgh

1926—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (3)

Managers—Rogers Hornsby, St. Louis; Miller J. Huggins, New York.

Oct. 2—New York (Pennock).....	2	St. Louis (Sherdel).....	1	At New York
Oct. 3—St. Louis (Alexander).....	6	New York (Shocker).....	2	At New York
Oct. 5—St. Louis (Haines).....	4	New York (Ruether).....	0	At St. Louis
Oct. 6—New York (Hoyt).....	10	St. Louis (Reinhart).....	5	At St. Louis
Oct. 7—New York (Pennock).....	3	St. Louis (Sherdel).....	2	At St. Louis (10 inn.)
Oct. 9—St. Louis (Alexander).....	10	New York (Shawkey).....	2	At New York
Oct. 10—St. Louis (Haines).....	3	New York (Hoyt).....	2	At New York

1927—NEW YORK A. L. (4) vs. PITTSBURGH N. L. (0)

Managers—Miller J. Huggins, New York; Owen J. Bush, Pittsburgh.

Oct. 5—New York (Hoyt).....	5	Pittsburgh (Kremer).....	4	At Pittsburgh
Oct. 6—New York (Pipgras).....	6	Pittsburgh (Aldridge).....	2	At Pittsburgh
Oct. 7—New York (Pennock).....	8	Pittsburgh (Meadows).....	1	At New York
Oct. 8—New York (Moore).....	4	Pittsburgh (Miljus).....	3	At New York

1928—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (0)

Managers—Miller J. Huggins, New York; William B. McKechnie, St. Louis.

Oct. 4—New York (Hoyt).....	4	St. Louis (Sherdel).....	1	At New York
Oct. 5—New York (Pipgras).....	9	St. Louis (Alexander).....	3	At New York
Oct. 7—New York (Zachary).....	7	St. Louis (Haines).....	3	At St. Louis
Oct. 9—New York (Hoyt).....	7	St. Louis (Sherdel).....	3	At St. Louis

1929—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Joseph V. McCarthy, Chicago.

Oct. 8—Philadelphia (Ehmke).....	3	Chicago (Root).....	1	At Chicago
Oct. 9—Philadelphia (Earnshaw).....	9	Chicago (Malone).....	3	At Chicago
Oct. 11—Chicago (Bush).....	3	Philadelphia (Earnshaw).....	1	At Philadelphia
Oct. 12—Philadelphia (Rommel).....	10	Chicago (Blake).....	8	At Philadelphia
Oct. 14—Philadelphia (Walberg).....	3	Chicago (Malone).....	2	At Philadelphia

1930—PHILADELPHIA A. L. (4) vs. ST. LOUIS N. L. (2)

Managers—Connie Mack, Philadelphia; Charles E. Street, St. Louis.

Oct. 1—Philadelphia (Grove).....	5	St. Louis (Grimes).....	2	At Philadelphia
Oct. 2—Philadelphia (Earnshaw).....	6	St. Louis (Rhems).....	1	At Philadelphia
Oct. 4—St. Louis (Hallahan).....	5	Philadelphia (Walberg).....	0	At St. Louis
Oct. 5—St. Louis (Haines).....	3	Philadelphia (Grove).....	1	At St. Louis
Oct. 6—Philadelphia (Grove).....	2	St. Louis (Grimes).....	0	At St. Louis
Oct. 8—Philadelphia (Earnshaw).....	8	St. Louis (Hallahan).....	1	At Philadelphia

1931—ST. LOUIS N. L. (4) vs. PHILADELPHIA A. L. (3)

Managers—Charles E. Street, St. Louis; Connie Mack, Philadelphia.

Oct. 1—Philadelphia (Grove).....	6	St. Louis (Derringer).....	2	At St. Louis
Oct. 2—St. Louis (Hallahan).....	2	Philadelphia (Earnshaw).....	0	At St. Louis
Oct. 5—St. Louis (Grimes).....	5	Philadelphia (Grove).....	2	At Philadelphia
Oct. 6—Philadelphia (Earnshaw).....	3	St. Louis (Johnson).....	0	At Philadelphia
Oct. 7—St. Louis (Hallahan).....	5	Philadelphia (Hoyt).....	1	At Philadelphia
Oct. 9—Philadelphia (Grove).....	8	St. Louis (Derringer).....	1	At St. Louis
Oct. 10—St. Louis (Grimes).....	4	Philadelphia (Earnshaw).....	2	At St. Louis

1932—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles J. Grimm, Chicago.

Sept. 28—New York (Ruffing).....	12	Chicago (Bush).....	6	At New York
Sept. 29—New York (Gomez).....	5	Chicago (Warneke).....	2	At New York
Oct. 1—New York (Pipgras).....	7	Chicago (Root).....	5	At Chicago
Oct. 2—New York (Moore).....	13	Chicago (May).....	6	At Chicago

1933—NEW YORK N. L. (4) vs. WASHINGTON A. L. (1)

Managers—William H. Terry, New York; Joseph E. Cronin, Washington.

Oct. 3—New York (Hubbell).....	4	Washington (Stewart).....	2	At New York
Oct. 4—New York (Schumacher).....	6	Washington (Crowder).....	1	At New York
Oct. 5—Washington (Whitehill).....	4	New York (Fitzsimmons).....	0	At Washington
Oct. 6—New York (Hubbell).....	2	Washington (Weaver).....	1	At Washington (11 inn.)
Oct. 7—New York (Luque).....	4	Washington (Russell).....	3	At Washington (10 inn.)

1934—ST. LOUIS N. L. (4) vs. DETROIT A. L. (3)

Managers—Frank F. Frisch, St. Louis; Gordon S. Cochrane, Detroit.

Oct. 3—St. Louis (J. Dean).....	8	Detroit (Crowder).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	3	St. Louis (W. Walker).....	2	At Detroit (12 inn.)
Oct. 5—St. Louis (P. Dean).....	4	Detroit (Bridges).....	1	At St. Louis
Oct. 6—Detroit (Auker).....	10	St. Louis (W. Walker).....	4	At St. Louis
Oct. 7—Detroit (Bridges).....	3	St. Louis (J. Dean).....	1	At St. Louis
Oct. 8—St. Louis (P. Dean).....	4	Detroit (Rowe).....	3	At Detroit
Oct. 9—St. Louis (J. Dean).....	11	Detroit (Auker).....	0	At Detroit

1935—DETROIT A. L. (4) vs. CHICAGO N. L. (2)

Managers—Gordon S. Cochrane, Detroit; Charles J. Grimm, Chicago.

Oct. 2—Chicago (Warneke).....	3	Detroit (Rowe).....	0	At Detroit
Oct. 3—Detroit (Bridges).....	8	Chicago (Root).....	3	At Detroit
Oct. 4—Detroit (Rowe).....	6	Chicago (French).....	5	At Chicago (11 inn.)
Oct. 5—Detroit (Crowder).....	2	Chicago (Carleton).....	1	At Chicago
Oct. 6—Chicago (Warneke).....	3	Detroit (Rowe).....	1	At Chicago
Oct. 7—Detroit (Bridges).....	4	Chicago (French).....	3	At Detroit

1936—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Sept. 30—Giants (Hubbell).....	6	Yankees (Ruffing).....	1	At Polo Grounds
Oct. 2—Yankees (Gomez).....	18	Giants (Schumacher).....	4	At Polo Grounds
Oct. 3—Yankees (Hadley).....	2	Giants (Fitzsimmons).....	1	At Yankee Stadium
Oct. 4—Yankees (Pearson).....	5	Giants (Hubbell).....	2	At Yankee Stadium
Oct. 5—Giants (Schumacher).....	5	Yankees (Malone).....	4	At Yankee Stadium (10 inn.)
Oct. 6—Yankees (Gomez).....	13	Giants (Fitzsimmons).....	5	At Polo Grounds

1937—NEW YORK A. L. (4) vs. NEW YORK N. L. (1)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Oct. 6—Yankees (Gomez).....	8	Giants (Hubbell).....	1	At Yankee Stadium
Oct. 7—Yankees (Ruffing).....	8	Giants (Melton).....	1	At Yankee Stadium
Oct. 8—Yankees (Pearson).....	5	Giants (Schumacher).....	1	At Polo Grounds
Oct. 9—Giants (Hubbell).....	7	Yankees (Hadley).....	3	At Polo Grounds
Oct. 10—Yankees (Gomez).....	4	Giants (Melton).....	2	At Polo Grounds

1938—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles L. Hartnett, Chicago.

Oct. 5—New York (Ruffing).....	3	Chicago (Lee).....	1	At Chicago
Oct. 6—New York (Gomez).....	6	Chicago (Dean).....	3	At Chicago
Oct. 8—New York (Pearson).....	5	Chicago (Bryant).....	2	At New York
Oct. 9—New York (Ruffing).....	8	Chicago (Lee).....	3	At New York

1939—NEW YORK A. L. (4) vs. CINCINNATI N. L. (0)

Managers—Joseph V. McCarthy, New York; William B. McKechnie, Cincinnati.

Oct. 4—New York (Ruffing).....	2	Cincinnati (Derringer).....	1	At New York
Oct. 5—New York (Pearson).....	4	Cincinnati (Walters).....	0	At New York
Oct. 7—New York (Hadley).....	7	Cincinnati (Thompson).....	3	At Cincinnati
Oct. 8—New York (Murphy).....	7	Cincinnati (Walters).....	4	At Cincinnati (10 inn.)

1940—CINCINNATI N. L. (4) vs. DETROIT A. L. (3)

Managers—William B. McKechnie, Cincinnati; Delmar D. Baker, Detroit.

Oct. 2—Detroit (Newsom).....	7	Cincinnati (Derringer).....	2	At Cincinnati
Oct. 3—Cincinnati (Walters).....	5	Detroit (Rowe).....	3	At Cincinnati
Oct. 4—Detroit (Bridges).....	7	Cincinnati (Turner).....	4	At Detroit
Oct. 5—Cincinnati (Derringer).....	5	Detroit (Trout).....	2	At Detroit
Oct. 6—Detroit (Newsom).....	8	Cincinnati (Thompson).....	0	At Detroit
Oct. 7—Cincinnati (Walters).....	4	Detroit (Rowe).....	0	At Cincinnati
Oct. 8—Cincinnati (Derringer).....	2	Detroit (Newsom).....	1	At Cincinnati

1941—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Joseph V. McCarthy, New York; Leo E. Durocher, Brooklyn.

Oct. 1—New York (Ruffing).....	3	Brooklyn (Davis).....	2	At New York
Oct. 2—Brooklyn (Wyatt).....	3	New York (Chandler).....	2	At New York
Oct. 4—New York (Russo).....	2	Brooklyn (Casey).....	1	At Brooklyn
Oct. 5—New York (Murphy).....	7	Brooklyn (Casey).....	4	At Brooklyn
Oct. 6—New York (Bonham).....	3	Brooklyn (Wyatt).....	1	At Brooklyn

1942—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (1)

Managers—William H. Southworth, St. Louis; Joseph V. McCarthy, New York.

Sept. 30—New York (Ruffing).....	7	St. Louis (M. Cooper).....	4	At St. Louis
Oct. 1—St. Louis (Beazley).....	4	New York (Bonham).....	3	At St. Louis
Oct. 3—St. Louis (White).....	2	New York (Chandler).....	0	At New York
Oct. 4—St. Louis (Lanier).....	9	New York (Donald).....	6	At New York
Oct. 5—St. Louis (Beazley).....	4	New York (Ruffing).....	2	At New York

1943—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (1)

Managers—Joseph V. McCarthy, New York; William H. Southworth, St. Louis.

Oct. 5—New York (Chandler).....	4	St. Louis (Lanier).....	2	At New York
Oct. 6—St. Louis (M. Cooper).....	4	New York (Bonham).....	3	At New York
Oct. 7—New York (Borowy).....	6	St. Louis (Brazle).....	2	At New York
Oct. 10—New York (Russo).....	2	St. Louis (Brecheen).....	1	At St. Louis
Oct. 11—New York (Chandler).....	2	St. Louis (M. Cooper).....	0	At St. Louis

1944—ST. LOUIS N. L. (4) vs. ST. LOUIS A. L. (2)

Managers—William H. Southworth, Cardinals; J. Luther Sewell, Browns.

Oct. 4—Browns (Galehouse).....	2	Cardinals (M. Cooper).....	1	At Sportsman's Park
Oct. 5—Cardinals (Donnelly).....	3	Browns (Muncief).....	2	At Sportsman's Pk. (11 inn.)
Oct. 6—Browns (Kramer).....	6	Cardinals (Wilks).....	2	At Sportsman's Park
Oct. 7—Cardinals (Brecheen).....	5	Browns (Jakucki).....	1	At Sportsman's Park
Oct. 8—Cardinals (M. Cooper).....	2	Browns (Galehouse).....	0	At Sportsman's Park
Oct. 9—Cardinals (Lanier).....	3	Browns (Potter).....	1	At Sportsman's Park

1945—DETROIT A. L. (4) vs. CHICAGO N. L. (3)

Managers—Stephen F. O'Neill, Detroit; Charles J. Grimm, Chicago.

Oct. 3—Chicago (Borowy).....	9	Detroit (Newhouser).....	0	At Detroit
Oct. 4—Detroit (Trucks).....	4	Chicago (Wyse).....	1	At Detroit
Oct. 5—Chicago (Passeau).....	3	Detroit (Overmire).....	0	At Detroit
Oct. 6—Detroit (Trout).....	4	Chicago (Prim).....	1	At Chicago
Oct. 7—Detroit (Newhouser).....	8	Chicago (Borowy).....	4	At Chicago
Oct. 8—Chicago (Borowy).....	8	Detroit (Trout).....	7	At Chicago (12 inn.)
Oct. 10—Detroit (Newhouser).....	9	Chicago (Borowy).....	3	At Chicago

1946—ST. LOUIS N. L. (4) vs. BOSTON A. L. (3)

Managers—Edwin H. Dyer, St. Louis; Joseph E. Cronin, Boston.

Oct. 6—Boston (Johnson).....	3	St. Louis (Pollet).....	2	At St. Louis (10 innings)
Oct. 7—St. Louis (Brecheen).....	3	Boston (Harris).....	0	At St. Louis
Oct. 9—Boston (Ferriss).....	4	St. Louis (Dickson).....	0	At Boston
Oct. 10—St. Louis (Munger).....	12	Boston (Hughson).....	3	At Boston
Oct. 11—Boston (Dobson).....	6	St. Louis (Brazle).....	3	At Boston
Oct. 13—St. Louis (Brecheen).....	4	Boston (Harris).....	1	At St. Louis
Oct. 15—St. Louis (Brecheen).....	4	Boston (Klinger).....	3	At St. Louis

1947—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Stanley R. Harris, New York; Burton E. Shotton, Brooklyn.

Sept. 30—New York (Shea).....	5	Brooklyn (Branca).....	3	At New York
Oct. 1—New York (Reynolds).....	10	Brooklyn (Lombardi).....	3	At New York
Oct. 2—Brooklyn (Casey).....	9	New York (Newsom).....	8	At Brooklyn
Oct. 3—Brooklyn (Casey).....	3	New York (Bevens).....	2	At Brooklyn
Oct. 4—New York (Shea).....	2	Brooklyn (Barney).....	1	At Brooklyn
Oct. 5—Brooklyn (Branca).....	8	New York (Page).....	6	At New York
Oct. 6—New York (Page).....	5	Brooklyn (Gregg).....	2	At New York

1948—CLEVELAND A. L. (4) vs. BOSTON N. L. (2)

Managers—Louis Boudreau, Cleveland; William H. Southworth, Boston.

Oct. 6—Boston (Sain).....	1	Cleveland (Feller).....	0	At Boston
Oct. 7—Cleveland (Lemon).....	4	Boston (Spahn).....	1	At Boston
Oct. 8—Cleveland (Bearden).....	2	Boston (Bickford).....	0	At Cleveland
Oct. 9—Cleveland (Gromek).....	2	Boston (Sain).....	1	At Cleveland
Oct. 10—Boston (Spahn).....	11	Cleveland (Feller).....	5	At Cleveland
Oct. 11—Cleveland (Lemon).....	4	Boston (Voiselle).....	3	At Boston

1949—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Casey Stengel, New York; Burton E. Shotton, Brooklyn.

Oct. 5—New York (Reynolds).....	1	Brooklyn (Newcombe).....	0	At New York
Oct. 6—Brooklyn (Roe).....	1	New York (Raschi).....	0	At New York
Oct. 7—New York (Page).....	4	Brooklyn (Branca).....	3	At Brooklyn
Oct. 8—New York (Lopat).....	6	Brooklyn (Newcombe).....	4	At Brooklyn
Oct. 9—New York (Raschi).....	10	Brooklyn (Barney).....	6	At Brooklyn

1950—NEW YORK A. L. (4) vs. PHILADELPHIA N. L. (0)

Managers—Casey Stengel, New York; Edwin M. Sawyer, Philadelphia.

Oct. 4—New York (Raschi).....	1	Philadelphia (Konstanty).....	0	At Philadelphia
Oct. 5—New York (Reynolds).....	2	Philadelphia (Roberts).....	1	At Philadelphia (10 inn.)
Oct. 6—New York (Ferrick).....	3	Philadelphia (Meyer).....	2	At New York
Oct. 7—New York (Ford).....	5	Philadelphia (Miller).....	2	At New York

1951—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Casey Stengel, Yankees; Leo E. Durocher, Giants.

Oct. 4—Giants (Koslo).....	5	Yankees (Reynolds).....	1	At Yankee Stadium
Oct. 5—Yankees (Lopat).....	3	Giants (Jansen).....	1	At Yankee Stadium
Oct. 6—Giants (Hearn).....	6	Yankees (Raschi).....	2	At Polo Grounds
Oct. 8—Yankees (Reynolds).....	6	Giants (Maglie).....	2	At Polo Grounds
Oct. 9—Yankees (Lopat).....	13	Giants (Jansen).....	1	At Polo Grounds
Oct. 10—Yankees (Raschi).....	4	Giants (Koslo).....	3	At Yankee Stadium

1952—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Casey Stengel, New York; Charles W. Dressen, Brooklyn.

Oct. 1—Brooklyn (Black).....	4	New York (Reynolds).....	2	At Brooklyn
Oct. 2—New York (Raschi).....	7	Brooklyn (Erskine).....	1	At Brooklyn
Oct. 3—Brooklyn (Roe).....	5	New York (Lopat).....	3	At New York
Oct. 4—New York (Reynolds).....	2	Brooklyn (Black).....	0	At New York
Oct. 5—Brooklyn (Erskine).....	6	New York (Sain).....	5	At New York (12 inns.)
Oct. 6—New York (Raschi).....	3	Brooklyn (Loes).....	2	At Brooklyn
Oct. 7—New York (Reynolds).....	4	Brooklyn (Black).....	2	At Brooklyn

1953—NEW YORK A. L. (4) vs. BROOKLYN N. L. (2)

Managers—Casey Stengel, New York; Charles W. Dressen, Brooklyn.

Sept. 30—New York (Sain).....	9	Brooklyn (Labine).....	5	At New York
Oct. 1—New York (Lopat).....	4	Brooklyn (Roe).....	2	At New York
Oct. 2—Brooklyn (Erskine).....	3	New York (Raschi).....	2	At Brooklyn
Oct. 3—Brooklyn (Loes).....	7	New York (Ford).....	3	At Brooklyn
Oct. 4—New York (McDonald).....	11	Brooklyn (Podres).....	7	At Brooklyn
Oct. 5—New York (Reynolds).....	4	Brooklyn (Labine).....	3	At New York

1954—NEW YORK N. L. (4) vs. CLEVELAND A. L. (0)

Managers—Leo E. Durocher, New York; Alfonso R. Lopez, Cleveland.

Sept. 29—New York (Grissom).....	5	Cleveland (Lemon).....	2	At New York
Sept. 30—New York (Antonelli).....	3	Cleveland (Wynn).....	1	At New York
Oct. 1—New York (Gomez).....	6	Cleveland (Garcia).....	2	At Cleveland
Oct. 2—New York (Liddle).....	7	Cleveland (Lemon).....	4	At Cleveland

1955—BROOKLYN N. L. (4) vs. NEW YORK A. L. (3)

Managers—Walter Alston, Brooklyn; Casey Stengel, New York.

Sept. 28—New York (Ford).....	6	Brooklyn (Newcombe).....	5	At New York
Sept. 29—New York (Byrne).....	4	Brooklyn (Loes).....	2	At New York
Sept. 30—Brooklyn (Podres).....	8	New York (Turley).....	3	At Brooklyn
Oct. 1—Brooklyn (Labine).....	8	New York (Larsen).....	5	At Brooklyn
Oct. 2—Brooklyn (Craig).....	5	New York (Grim).....	3	At Brooklyn
Oct. 3—New York (Ford).....	5	Brooklyn (Spoonier).....	1	At New York
Oct. 4—Brooklyn (Podres).....	2	New York (Byrne).....	0	At New York

1956—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Casey Stengel, New York; Walter Alston, Brooklyn

Oct. 3—Brooklyn (Maglie).....	6	New York (Ford).....	3	At Brooklyn
Oct. 5—Brooklyn (Bessent).....	13	New York (Morgan).....	8	At Brooklyn
Oct. 6—New York (Ford).....	5	Brooklyn (Craig).....	3	At New York
Oct. 7—New York (Sturdivant).....	6	Brooklyn (Erskine).....	2	At New York
Oct. 8—New York (Larsen).....	2	Brooklyn (Maglie).....	0	At New York
Oct. 9—Brooklyn (Labine).....	1	New York (Turley).....	0	At Brooklyn (10 inns.)
Oct. 10—New York (Kucks).....	9	Brooklyn (Newcombe).....	0	At Brooklyn

1957—MILWAUKEE N. L. (4) vs. NEW YORK A. L. (3)

Managers—Fred Haney, Milwaukee; Casey Stengel, New York

Oct. 2—New York (Ford).....	3	Milwaukee (Spahn).....	1	At New York
Oct. 3—Milwaukee (Burdette).....	4	New York (Shantz).....	2	At New York
Oct. 5—New York (Larsen).....	12	Milwaukee (Buhl).....	3	At Milwaukee
Oct. 6—Milwaukee (Spahn).....	7	New York (Grim).....	5	At Milwaukee (10 inns.)
Oct. 7—Milwaukee (Burdette).....	1	New York (Ford).....	0	At Milwaukee
Oct. 9—New York (Turley).....	3	Milwaukee (Johnson).....	2	At New York
Oct. 10—Milwaukee (Burdette).....	5	New York (Larsen).....	0	At New York

(For 1958 World Series see index)

World Series Club Standing (Through 1957)

	Series	Won	Lost	Pct.		Series	Won	Lost	Pct.
Milwaukee (N)	1	1	0	1.000	Washington (A) ..	3	1	2	.333
Boston (A)	6	5	1	.833	Detroit (A)	7	2	5	.286
New York (A)	23	17	6	.739	Chicago (N)	10	2	8	.200
St. Louis (N)	9	6	3	.667	Brooklyn (N)	9	1	8	.111
Cincinnati (N)	3	2	1	.667	St. Louis (A)	1	0	1	.000
Cleveland (A)	3	2	1	.667	Philadelphia (N) ..	2	0	2	.000
Chicago (A)	3	2	1	.667					
Philadelphia (A) ..	8	5	3	.625					
Boston (N)	2	1	1	.500					
Pittsburgh (N)	4	2	2	.500					
New York (N)	14	5	9	.357					

RECAPITULATION

	Won
American League	34
National League	20

National League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1876	Chicago.....	Albert G. Spalding.....	52	14	.788	1917	New York.....	John J. McGraw.....	98	56	.636
1877	Boston.....	Harry Wright.....	31	17	.646	1918	Chicago.....	Fred L. Mitchell.....	84	45	.651
1878	Boston.....	Harry Wright.....	41	19	.683	1919*	Cincinnati.....	Patrick J. Moran.....	96	44	.686
1879	Providence.....	George Wright.....	59	25	.702	1920	Brooklyn.....	Wilbert Robinson.....	93	61	.604
1880	Chicago.....	Adrian C. Anson.....	67	17	.798	1921*	New York.....	John J. McGraw.....	94	59	.614
1881	Chicago.....	Adrian C. Anson.....	56	28	.667	1922*	New York.....	John J. McGraw.....	93	61	.604
1882	Chicago.....	Adrian C. Anson.....	55	29	.655	1923	New York.....	John J. McGraw.....	95	58	.621
1883	Boston.....	John F. Morrill.....	63	35	.643	1924	New York.....	John J. McGraw.....	93	60	.608
1884	Providence.....	Frank C. Bancroft.....	84	28	.750	1925*	Pittsburgh.....	William B. McKechnie.....	95	58	.621
1885	Chicago.....	Adrian C. Anson.....	87	25	.777	1926*	St. Louis.....	Rogers Hornsby.....	89	65	.578
1886	Chicago.....	Adrian C. Anson.....	90	34	.726	1927	Pittsburgh.....	Owen J. Bush.....	94	60	.610
1887	Detroit.....	W. H. Watkins.....	79	45	.637	1928	St. Louis.....	William B. McKechnie.....	95	59	.617
1888	New York.....	James J. Mutrie.....	84	47	.641	1929	Chicago.....	Joseph V. McCarthy.....	98	54	.645
1889	New York.....	James J. Mutrie.....	83	43	.659	1930	St. Louis.....	Charles E. Street.....	92	62	.597
1890	Brooklyn.....	William H. McGunnigle.....	86	43	.667	1931*	St. Louis.....	Charles E. Street.....	101	53	.656
1891	Boston.....	Frank G. Selee.....	87	51	.630	1932	Chicago.....	Charles J. Grimm.....	90	64	.584
1892	Boston.....	Frank G. Selee.....	102	48	.680	1933*	New York.....	William H. Terry.....	91	61	.599
1893	Boston.....	Frank G. Selee.....	86	43	.667	1934*	St. Louis.....	Frank F. Frisch.....	95	58	.621
1894	Baltimore.....	Edward H. Hanlon.....	89	39	.695	1935	Chicago.....	Charles J. Grimm.....	100	54	.649
1895	Baltimore.....	Edward H. Hanlon.....	87	43	.669	1936	New York.....	William H. Terry.....	92	62	.597
1896	Baltimore.....	Edward H. Hanlon.....	90	39	.698	1937	New York.....	William H. Terry.....	95	57	.625
1897	Boston.....	Frank G. Selee.....	93	39	.705	1938	Chicago.....	Charles L. Hartnett.....	89	63	.586
1898	Boston.....	Frank G. Selee.....	102	47	.685	1939	Cincinnati.....	William B. McKechnie.....	97	57	.630
1899	Brooklyn.....	Edward H. Hanlon.....	88	42	.677	1940*	Cincinnati.....	William B. McKechnie.....	100	53	.654
1900	Brooklyn.....	Edward H. Hanlon.....	82	54	.603	1941	Brooklyn.....	Leo E. Durocher.....	100	54	.649
1901	Pittsburgh.....	Fred C. Clarke.....	90	49	.647	1942*	St. Louis.....	William H. Southworth.....	106	48	.688
1902	Pittsburgh.....	Fred C. Clarke.....	103	36	.741	1943	St. Louis.....	William H. Southworth.....	105	49	.682
1903	Pittsburgh.....	Fred C. Clarke.....	91	49	.650	1944*	St. Louis.....	William H. Southworth.....	105	49	.682
1904†	New York.....	John J. McGraw.....	106	47	.693	1945	Chicago.....	Charles J. Grimm.....	98	56	.636
1905*	New York.....	John J. McGraw.....	105	48	.686	1946*	St. Louis.....	Edwin H. Dyer.....	98	58	.628
1906	Chicago.....	Frank L. Chance.....	116	36	.763	1947	Brooklyn.....	Burton E. Shotton.....	94	60	.610
1907*	Chicago.....	Frank L. Chance.....	107	45	.704	1948	Boston.....	William H. Southworth.....	91	62	.595
1908*	Chicago.....	Frank L. Chance.....	99	55	.643	1949	Brooklyn.....	Burton E. Shotton.....	97	57	.630
1909*	Pittsburgh.....	Fred C. Clarke.....	110	42	.724	1950	Philadelphia.....	Edwin M. Sawyer.....	91	63	.591
1910	Chicago.....	Frank L. Chance.....	104	50	.675	1951	New York.....	Leo E. Durocher.....	98	59	.624
1911	New York.....	John J. McGraw.....	99	54	.647	1952	Brooklyn.....	Charles W. Dressen.....	96	57	.627
1912	New York.....	John J. McGraw.....	103	48	.682	1953	Brooklyn.....	Charles W. Dressen.....	99	52	.656
1913	New York.....	John J. McGraw.....	101	51	.664	1954*	New York.....	Leo E. Durocher.....	97	57	.630
1914*	Boston.....	George T. Stallings.....	94	59	.614	1955*	Brooklyn.....	Walter Alston.....	98	55	.641
1915	Philadelphia.....	Patrick J. Moran.....	90	62	.592	1956	Brooklyn.....	Walter Alston.....	93	61	.604
1916	Brooklyn.....	Wilbert Robinson.....	94	60	.610	1957*	Milwaukee.....	Fred Haney.....	95	59	.617

* World Series winner. † No World Series.

American League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.	Year	Club	Manager	Won	Lost	Pct.
1901	Chicago	Clark C. Griffith	83	53	.610	1930*	Philadelphia	Connie Mack	102	52	.662
1902	Philadelphia	Connie Mack	83	53	.610	1931	Philadelphia	Connie Mack	107	45	.704
1903*	Boston	James J. Collins	91	47	.659	1932*	New York	Joseph V. McCarthy	107	47	.695
1904†	Boston	James J. Collins	95	59	.617	1933	Washington	Joseph E. Cronin	99	53	.651
1905	Philadelphia	Connie Mack	92	56	.622	1934	Detroit	Gordon S. Cochrane	101	53	.656
1906*	Chicago	Fielder A. Jones	93	58	.616	1935*	Detroit	Gordon S. Cochrane	93	58	.616
1907	Detroit	Hugh A. Jennings	92	58	.613	1936*	New York	Joseph V. McCarthy	102	51	.667
1908	Detroit	Hugh A. Jennings	90	63	.588	1937*	New York	Joseph V. McCarthy	102	52	.662
1909	Detroit	Hugh A. Jennings	98	54	.645	1938*	New York	Joseph V. McCarthy	99	53	.651
1910*	Philadelphia	Connie Mack	102	48	.680	1939*	New York	Joseph V. McCarthy	106	45	.702
1911*	Philadelphia	Connie Mack	101	50	.669	1940	Detroit	Delmar D. Baker	90	64	.584
1912*	Boston	J. Garland Stahl	105	47	.691	1941*	New York	Joseph V. McCarthy	101	53	.656
1913*	Philadelphia	Connie Mack	96	57	.627	1942	New York	Joseph V. McCarthy	103	51	.669
1914	Philadelphia	Connie Mack	99	53	.651	1943*	New York	Joseph V. McCarthy	98	56	.636
1915*	Boston	William F. Carrigan	101	50	.669	1944	St. Louis	James L. Sewell	89	65	.578
1916*	Boston	William F. Carrigan	91	63	.591	1945*	Detroit	Stephen F. O'Neill	88	65	.575
1917*	Chicago	Clarence H. Rowland	100	54	.649	1946	Boston	Joseph E. Cronin	104	50	.675
1918*	Boston	Edward G. Barrow	75	51	.595	1947*	New York	Stanley R. Harris	97	57	.630
1919	Chicago	William Gleason	88	52	.599	1948*	Cleveland	Louis Boudreau	97	58	.626
1920*	Cleveland	Tris E. Speaker	98	56	.636	1949*	New York	Casey Stengel	97	57	.630
1921	New York	Miller J. Huggins	98	55	.641	1950*	New York	Casey Stengel	98	56	.636
1922	New York	Miller J. Huggins	94	60	.610	1951*	New York	Casey Stengel	98	56	.636
1923*	New York	Miller J. Huggins	98	54	.645	1952*	New York	Casey Stengel	95	59	.617
1924*	Washington	Stanley R. Harris	92	62	.597	1953*	New York	Casey Stengel	105	49	.682
1925	Washington	Stanley R. Harris	96	55	.636	1954	Cleveland	Alfonso R. Lopez	111	43	.721
1926	New York	Miller J. Huggins	91	63	.591	1955	New York	Casey Stengel	96	58	.623
1927*	New York	Miller J. Huggins	110	44	.714	1956*	New York	Casey Stengel	97	57	.630
1928*	New York	Miller J. Huggins	101	53	.656	1957	New York	Casey Stengel	98	56	.636
1929*	Philadelphia	Connie Mack	104	46	.693						

* World Series winner. † No World Series.

NATIONAL BASEBALL HALL OF FAME

Cooperstown, N. Y.

Member	Elected	Member	Elected	Member	Elected
Alexander, Grover Cleveland	1938	Duffy, Hugh	1945	McGinnity, Joseph Jerome	1946
Anson, Adrian (Cap)	1939	Evers, John Joseph	1946	McGraw, John Joseph	1937
Baker, J. Frank (Home Run)	1955	Ewing, William B. (Buck)	1939	Nichols, Charles A. (Kid)	1949
Barrow, Edward Grant	1953	Fox, James Emory	1951	O'Rourke, James H.	1945
Bender, Charles Albert (Chief)	1953	Frisch, Frank F.	1947	Ott, Melvin Thomas	1951
Bresnahan, Roger Philip	1945	Gehrig, Henry Louis	1939	Pennock, Herbert J.	1948
Brouthers, Dan	1945	Gehring, Charles L.	1949	Plank, Edward S.	1946
Brown, Mordecai (Three-Finger)	1949	Greenberg, Henry Benjamin	1956	Radbourne, Charles	1939
Bulkeley, Morgan G.	1937	Griffith, Clark C.	1946	Robinson, Wilbert	1945
Burkett, Jesse C.	1946	Grove, Robert Moses (Lefty)	1947	Ruth, George Herman (Babe)	1936
Cartwright, Alexander Joy	1938	Hartnett, Charles L. (Gabby)	1955	Schalk, Raymond	1955
Chadwick, Henry	1938	Heilmann, Harry E.	1952	Simmons, Aloysius Harry	1953
Chance, Frank LeRoy	1946	Hornsby, Rogers	1942	Sisler, George Harold	1939
Chesbro, John Dwight	1946	Hubbell, Carl Owen	1947	Spalding, Albert Goodwill	1939
Clarke, Fred C.	1945	Jennings, Hughie	1945	Speaker, Tristram E.	1937
Cobb, Tyrus Raymond	1936	Johnson, Byron Bancroft	1937	Terry, William H.	1954
Cochrane, Gordon (Mickey)	1947	Johnson, Walter Perry	1936	Tinkers, Joseph B.	1946
Collins, Edward Trowbridge	1939	Keeler, Willie	1939	Traynor, Harold J. (Pie)	1948
Collins, James J.	1945	Kelly, Michael J. (King)	1945	Vance, Arthur C. (Daddy)	1955
Comiskey, Charles Albert	1939	Klem, William Joseph	1953	Waddell, George E. (Rube)	1946
Connolly, Thomas H.	1953	Lajoie, Napoleon	1937	Wagner, John P. (Honus)	1936
Crawford, Samuel E.	1957	Landis, Kenesaw Mountain	1944	Wallace, Roderick John	1953
Cronin, Joseph Edward	1956	Lyons, Theodore Amar	1955	Walsh, Edward A.	1946
Cummings, William Arthur	1939	Mack, Connie	1937	Waner, Paul G.	1952
Dean, Jay Hanna (Dizzy)	1953	Maranville, Walter J. (Rabbit)	1954	Wright, George	1937
Delahanty, Edward J.	1945	Mathewson, Christopher	1936	Wright, Harry	1953
Dickey, William M.	1954	McCarthy, Joseph V.	1957	Young, Denton T. (Cy)	1937
DiMaggio, Joseph Paul	1955	McCarthy, Thomas F.	1946		

NO ONE ADMITTED TO HALL OF FAME IN 1958

No candidates received sufficient votes in the annual polling to gain admission to the Baseball Hall of Fame in 1958. Whereas 199 (or three-quarters) of the votes were

needed for election, Max Carey, who led the poll, had 136. Edd Roush was next with 112. Charlie (Red) Ruffing was third and Hack Wilson fourth.

National League Batting Champions

Year	Avg.	Year	Avg.	Year	Avg.
1876—R. Barnes, Chi.	403	1903—J. P. Wagner, Pitts.	355	1931—C. J. Hafey, St. L.	349
1877—J. L. White, Bos.	385	1904—J. P. Wagner, Pitts.	349	1932—F. J. O'Doul, Bklyn.	368
1878—A. Dalrymple, Mil.	356	1905—J. B. Seymour, Cin.	377	1933—C. H. Klein, Phila.	368
1879—A. C. Anson, Chi.	407	1906—J. P. Wagner, Pitts.	339	1934—P. G. Waner, Pitts.	362
1880—G. F. Gore, Chi.	365	1907—J. P. Wagner, Pitts.	350	1935—F. Vaughan, Pitts.	385
1881—A. C. Anson, Chi.	399	1908—J. P. Wagner, Pitts.	354	1936—P. G. Waner, Pitts.	373
1882—D. Brouthers, Buf.	367	1909—J. P. Wagner, Pitts.	339	1937—J. M. Medwick, St. L.	374
1883—D. Brouthers, Buf.	371	1910—S. N. Magee, Phila.	331	1938—E. N. Lombardi, Cin.	342
1884—J. O'Rourke, Buf.	350	1911—J. P. Wagner, Pitts.	334	1939—J. R. Mize, St. L.	349
1885—R. Connor, N. Y.	371	1912—H. Zimmerman, Chi.	372	1940—D. Garmis, Pitts.	355
1886—M. J. Kelly, Chi.	388	1913—J. Daubert, Bklyn.	350	1941—H. P. Reiser, Bklyn.	343
1887—A. C. Anson, Chi.	421	1914—J. Daubert, Bklyn.	329	1942—E. N. Lombardi, Bos.	330
1888—A. C. Anson, Chi.	343	1915—L. Doyle, N. Y.	320	1943—Stan Musial, St. Louis.	357
1889—D. Brouthers, Bos.	373	1916—H. Chase, Cin.	339	1944—F. Walker, Bklyn.	357
1890—J. Glasscock, N. Y.	336	1917—E. J. Roush, Cin.	341	1945—P. J. Cavarretta, Chicago.	355
1891—W. Hamilton, Phila.	338	1918—Z. D. Wheat, Bklyn.	335	1946—Stan Musial, St. Louis.	365
1892—C. Childs, Cleve.	335	1919—E. J. Roush, Cin.	321	1947—H. W. Walker, Phila.	363
1892—D. Brouthers, Bklyn.	335	1920—Rogers Hornsby, St. L.	370	1948—Stan Musial, St. Louis.	376
1893—Hugh Duffy, Bos.	378	1921—Rogers Hornsby, St. L.	397	1949—J. R. Robinson, Bklyn.	342
1894—Hugh Duffy, Bos.	438	1922—Rogers Hornsby, St. L.	401	1950—Stan Musial, St. Louis.	346
1895—J. Burkett, Cleve.	423	1923—Rogers Hornsby, St. L.	384	1951—Stan Musial, St. Louis.	355
1896—J. Burkett, Cleve.	410	1924—Rogers Hornsby, St. L.	424	1952—Stan Musial, St. Louis.	336
1897—W. Keeler, Balt.	432	1925—Rogers Hornsby, St. L.	403	1953—C. A. Furillo, Bklyn.	344
1898—W. Keeler, Balt.	379	1926—Eugene Hargrave, Cin.	353	1954—Willie Mays, N. Y.	345
1899—E. J. Delahanty, Phila.	408	1927—Paul G. Waner, Pitts.	387	1955—R. Ashburn, Phila.	338
1900—J. P. Wagner, Pitts.	380	1928—Rogers Hornsby, Bos.	380	1956—Henry Aaron, Milw.	328
1901—J. Burkett, St. L.	382	1929—Frank J. O'Doul, Phila.	398	1957—Stan Musial, St. Louis.	351
1902—C. H. Beaumont, Pitts.	357	1930—Wm. H. Terry, N. Y.	401		

American League Batting Champions

1901—N. Lajoie, Phila.	422	1920—G. H. Sisler, St. L.	407	1939—J. P. DiMaggio, N. Y.	381
1902—E. J. Delahanty, Wash.	376	1921—H. E. Heilmann, Det.	394	1940—J. P. DiMaggio, N. Y.	352
1903—N. Lajoie, Cleve.	355	1922—G. H. Sisler, St. L.	420	1941—Ted Williams, Bos.	406
1904—N. Lajoie, Cleve.	381	1923—H. E. Heilmann, Det.	403	1942—Ted Williams, Bos.	356
1905—Elmer Flick, Cleve.	306	1924—G. H. Ruth, N. Y.	378	1943—L. B. Appling, Chi.	328
1906—G. Stone, St. L.	358	1925—H. E. Heilmann, Det.	393	1944—L. Boudreau, Cleve.	327
1907—T. R. Cobb, Det.	350	1926—H. E. Manush, Det.	378	1945—G. H. Stirnweiss, N. Y.	309
1908—T. R. Cobb, Det.	324	1927—H. E. Heilmann, Det.	398	1946—J. B. Vernon, Wash.	353
1909—T. R. Cobb, Det.	377	1928—L. A. Goslin, Wash.	379	1947—Ted Williams, Bos.	343
1910—T. R. Cobb, Det.	385	1929—L. A. Fonseca, Cleve.	369	1948—Ted Williams, Bos.	369
1911—T. R. Cobb, Det.	420	1930—A. H. Simmons, Phila.	381	1949—G. C. Keli, Det.	343
1912—T. R. Cobb, Det.	410	1931—A. H. Simmons, Phila.	390	1950—W. D. Goodman, Bos.	354
1913—T. R. Cobb, Det.	390	1932—D. Alexander, Det.-Bos.	367	1951—Ferris Fain, Phila.	344
1914—T. R. Cobb, Det.	368	1933—J. E. Foxx, Phila.	356	1952—Ferris Fain, Phila.	327
1915—T. R. Cobb, Det.	369	1934—H. L. Gehrig, N. Y.	363	1953—J. B. Vernon, Wash.	337
1916—T. Speaker, Cleve.	386	1935—C. S. Myer, Wash.	349	1954—R. F. Avila, Cleve.	341
1917—T. R. Cobb, Det.	383	1936—L. B. Appling, Chi.	388	1955—A. W. Kaline, Det.	340
1918—T. R. Cobb, Det.	382	1937—C. L. Gehring, Det.	371	1956—Mickey Mantle, N. Y.	353
1919—T. R. Cobb, Det.	384	1938—J. E. Foxx, Bos.	349	1957—Ted Williams, Boston.	388

MOST VALUABLE PLAYERS

(Baseball Writers' Association selections)

American League

1931—Robert Grove, Philadelphia
1932—James Foxx, Philadelphia
1933—James Foxx, Philadelphia
1934—Gordon Cochran, Detroit
1935—Henry Greenberg, Detroit
1936—Lou Gehrig, New York
1937—Charles Gehringer, Detroit
1938—James Foxx, Boston
1939—Joe DiMaggio, New York
1940—Henry Greenberg, Detroit
1941—Joe DiMaggio, New York
1942—Joe Gordon, New York
1943—Spurgeon Chandler, N. Y.
1944—Harold Newhouser, Detroit
1945—Harold Newhouser, Detroit
1946—Ted Williams, Boston
1947—Joe DiMaggio, New York
1948—Lou Boudreau, Cleveland

1949—Ted Williams, Boston
1950—Phil Rizzuto, New York
1951—Lawrence Berra, New York
1952—Robert Shantz, Phila.
1953—Al Rosen, Cleveland
1954—Lawrence Berra, New York
1955—Lawrence Berra, New York
1956—Mickey Mantle, New York
1957—Mickey Mantle, New York

National League

1931—Frank Frisch, St. Louis
1932—Charles Klein, Philadelphia
1933—Carl Hubbell, New York
1934—Jerome Dean, St. Louis
1935—Charles Hartnett, Chicago
1936—Carl Hubbell, New York
1937—Joseph Medwick, St. Louis

1938—Ernest Lombardi, Cinc.
1939—William Walters, Cinc.
1940—Frank McCormick, Cinc.
1941—Adolph Camilli, Brooklyn
1942—Morton Cooper, St. Louis
1943—Stanley Musial, St. Louis
1944—Marty Marion, St. Louis
1945—Phil Cavarretta, Chicago
1946—Stanley Musial, St. Louis
1947—Robert Elliott, Boston
1948—Stanley Musial, St. Louis
1949—Jackie Robinson, Brooklyn
1950—Jim Konstanty, Phila.
1951—Roy Campanella, Brooklyn
1952—Henry Sauer, Chicago
1953—Roy Campanella, Brooklyn
1954—Willie Mays, New York
1955—Roy Campanella, Brooklyn
1956—Don Newcombe, Brooklyn
1957—Henry Aaron, Milwaukee

National League Home Run Champions

Year		No.	Year		No.	Year		No.
1876	George Hall, Phila. Athletics	5	1903	James Sheppard, Bklyn.	9	1931	Chuck Klein, Phila.	31
1877	George Shaffer, Louisville	3	1904	Harry Lumley, Bklyn.	9	1932	Chuck Klein, Phila., and Mel Ott, N. Y.	38
1878	Paul Hines, Providence	4	1905	Fred Odwell, Cin.	9			
1879	Charles Jones, Bost.	9	1906	Tim Jordan, Bklyn.	12	1933	Chuck Klein, Phila.	28
1880	James O'Rourke, Bost. and Harry Stovey, Worcester	6	1907	David Brain, Bost.	10	1934	Mel Ott, N. Y., and Rip Collins, St. L.	35
1881	Dennis Brouthers, Buffalo	8	1908	Tim Jordan, Bklyn.	12			
1882	George Wood, Det.	7	1909	John Murray, N. Y.	7	1935	Wally Berger, Bost.	34
1883	William Ewing, N. Y.	10	1910	Fred Beck, Bost., and Frank Schulte, Chi.	10	1936	Mel Ott, N. Y.	33
1884	Ed Williamson, Chi.	27	1911	Frank Schulte, Chi.	21	1937	Mel Ott, N. Y., and Joe Medwick, St. L.	31
1885	Abner Dalrymple, Chi.	11	1912	Henry Zimmerman, Chi.	14	1938	Mel Ott, N. Y.	36
1886	Arthur Richardson, Det.	11	1913	Cliff Cravath, Phila.	19	1939	John Mize, St. L.	28
1887	Roger Connor, N. Y., and Wm. O'Brien, Wash.	17	1914	Cliff Cravath, Phila.	19	1940	John Mize, St. L.	40
			1915	Cliff Cravath, Phila.	24	1941	Dolph Camilli, Bklyn.	34
1888	Roger Connor, N. Y.	14	1916	Davis Robertson, N. Y., and Fred Williams, Chi.	12	1942	Mel Ott, N. Y.	30
1889	Sam Thompson, Phila.	20				1943	Bill Nicholson, Chi.	29
1890	Tom Burns, Bklyn., and Mike Tiernan, N. Y.	13	1917	Davis Robertson, N. Y., and Cliff Cravath, Phila.	12	1944	Bill Nicholson, Chi.	33
1891	Harry Stovey, Bost., and Mike Tiernan, N. Y.	16	1918	Cliff Cravath, Phila.	8	1945	Tommy Holmes, Bost.	28
1892	Jim Holliday, Cin.	13	1919	Cliff Cravath, Phila.	12	1946	Ralph Kiner, Pitts.	23
1893	Ed Delehanty, Phila.	19	1920	Cy Williams, Phila.	15	1947	Ralph Kiner, Pitts., and John Mize, N. Y.	51
1894	Hugh Duffy, Bost., and Robert Lowe, Bost.	18	1921	George Kelly, N. Y.	23	1948	Ralph Kiner, Pitts., and John Mize, N. Y.	40
1895	Bill Joyce, Wash.	17	1922	Rogers Hornsby, St. L.	42	1949	Ralph Kiner, Pitts.	54
1896	Ed Delehanty, Phila., and Sam Thompson, Phila.	13	1923	Cy Williams, Phila.	41	1950	Ralph Kiner, Pitts.	47
			1924	Jacques Fournier, Bklyn.	27	1951	Ralph Kiner, Pitts.	42
1897	Nap Lajoie, Phila.	10	1925	Rogers Hornsby, St. L.	39	1952	Ralph Kiner, Pitts., and Hank Sauer, Chi.	37
1898	James Collins, Bost.	14	1926	Hack Wilson, Chi.	21			
1899	John Freeman, Wash.	25	1927	Hack Wilson, Chi., and Cy Williams, Phila.	30	1953	Ed Mathews, Mil.	47
1900	Herman Long, Bost.	12	1928	Hack Wilson, Chi., and Jim Bottomley, St. L.	31	1954	Ted Kluszewski, Cin.	49
1901	Sam Crawford, Cin.	16				1955	Willie Mays, N. Y.	51
1902	Tom Leach, Pitts.	6	1929	Chuck Klein, Phila.	43	1956	Duke Snider, Bklyn.	43
			1930	Hack Wilson, Chi.	56	1957	Henry Aaron, Mil.	44

American League Home Run Champions

1901	Nap Lajoie, Phila.....	13	1920	Babe Ruth, N. Y.....	54	1939	Jimmy Foxx, Phila.....	35
1902	Ralph Seybold, Phila.....	16	1921	Babe Ruth, N. Y.....	59	1940	Hank Greenberg, Det.....	41
1903	Buck Freeman, Bost.....	13	1922	Ken Williams, St. L.....	39	1941	Ted Williams, Bost.....	37
1904	Harry Davis, Phila.....	10	1923	Babe Ruth, N. Y.....	41	1942	Ted Williams, Bost.....	36
1905	Harry Davis, Phila.....	8	1924	Babe Ruth, N. Y.....	46	1943	Rudy York, Det.....	34
1906	Harry Davis, Phila.....	12	1925	Bob Meusel, N. Y.....	33	1944	Nick Etten, N. Y.....	22
1907	Harry Davis, Phila.....	8	1926	Babe Ruth, N. Y.....	47	1945	Vern Stephens, St. L.....	24
1908	Sam Crawford, Det.....	7	1927	Babe Ruth, N. Y.....	60	1946	Hank Greenberg, Det.....	44
1909	Ty Cobb, Det.....	9	1928	Babe Ruth, N. Y.....	54	1947	Ted Williams, Bost.....	32
1910	J. Garland Stahl, Bost.....	10	1929	Babe Ruth, N. Y.....	46	1948	Joe DiMaggio, N. Y.....	39
1911	Franklin Baker, Phila.....	9	1930	Babe Ruth, N. Y.....	49	1949	Ted Williams, Bost.....	43
1912	Franklin Baker, Phila.....	10	1931	Babe Ruth, N. Y., and Lou Gehrig, N. Y.....	46	1950	Al Rosen, Cleve.....	37
1913	Franklin Baker, Phila.....	12	1932	Jimmy Foxx, Phila.....	58	1951	Gus Zernial, Phila.....	33
1914	Franklin Baker, Phila., and Sam Crawford, Det.....	8	1933	Jimmy Foxx, Phila.....	48	1952	Larry Doby, Cleve.....	32
1915	Robert Roth, Chi.-Cleve.....	7	1934	Lou Gehrig, N. Y.....	49	1953	Al Rosen, Cleve.....	43
1916	Wally Pipp, N. Y.....	12	1935	Jimmy Foxx, Phila., and Hank Greenberg, Det.....	36	1954	Larry Doby, Cleve.....	32
1917	Wally Pipp, N. Y.....	9	1936	Lou Gehrig, N. Y.....	49	1955	Mickey Mantle, N. Y.....	37
1918	Babe Ruth, Bost., and Clarence Walker, Phila.....	11	1937	Joe DiMaggio, N. Y.....	46	1956	Mickey Mantle, N. Y.....	51
1919	Babe Ruth, Bost.....	29	1938	Hank Greenberg, Det.....	58	1957	Roy Sievers, Wash.....	41

BABE RUTH'S MAJOR LEAGUE HOME-RUN RECORD

Regular Season			1924	New York (A)....	46	World Series			All-Star Game		
Year	Club	No.	1925	New York (A)....	25	Year	Club	No.	Year	Club	No.
1914	Boston (A).....	0	1926	New York (A)....	47	1915	Boston (A).....	0	1933	American.....	1
1915	Boston (A).....	4	1927	New York (A)....	60	1916	Boston (A).....	0	1934	American.....	0
1916	Boston (A).....	3	1928	New York (A)....	54	1918	Boston (A).....	0	Totals		
1917	Boston (A).....	2	1929	New York (A)....	46	1921	New York (A)....	1	Regular season.....	714	
1918	Boston (A).....	11	1930	New York (A)....	49	1922	New York (A)....	0	World Series.....	15	
1919	Boston (A).....	29	1931	New York (A)....	46	1923	New York (A)....	3	All-Star.....	1	
1920	New York (A)....	54	1932	New York (A)....	41	1926	New York (A)....	4			
1921	New York (A)....	59	1933	New York (A)....	34	1927	New York (A)....	2			
1922	New York (A)....	35	1934	New York (A)....	22	1928	New York (A)....	3			
1923	New York (A)....	41	1935	Boston (N).....	6	1932	New York (A)....	2			

MAJOR LEAGUE STATISTICS

lf—Left-field foul line; cf—center field; rf—right-field foul line. (2)—Indicates double-header.

American League

Club, nickname and grounds	Distance, feet			Seating capacity	Record attendance	Visiting club	Date
	lf	cf	rf				
Baltimore Orioles—Memorial Stadium	309	410	309	47,778	46,796	New York (2)	May 16, 1954
Boston Red Sox—Fenway Park	315	420	302	34,819	41,766	New York (2)	Aug. 12, 1934
Chicago White Sox—Comiskey Park	352	415	352	46,550	54,215	New York (2)	July 19, 1953
Cleveland Indians—Municipal Stadium	320	410	320	73,811	84,587	New York (2)	Sept. 12, 1954
Detroit Tigers—Briggs Stadium	340	440	325	52,904	58,369	New York (2)	July 20, 1947
Kansas City Athletics—Municipal Stadium	330	421	353	30,611	33,585	New York (2, night)	July 24, 1955
New York Yankees—Yankee Stadium	301	461	296	70,000	81,841	Boston (2)	May 30, 1938
Washington Senators—Griffith Stadium	350	401	320	28,669	35,563	New York (2)	July 4, 1936

National League

Chicago Cubs—Wrigley Field	355	400	353	36,755	46,965	Pittsburgh (2)	May 31, 1948
Cincinnati Redlegs—Crosley Field	328	387	342	29,584	36,961	Pittsburgh (2)	Apr. 27, 1947
Los Angeles Dodgers—Memorial Coliseum*	250	440	300	94,600	73,672	San Francisco	Apr. 18, 1958
Milwaukee Braves—County Stadium	320	402	315	43,768	47,604	Cincinnati (2)	Sept. 3, 1956
Philadelphia Phillies—Connie Mack Stadium	334	447	329	33,359	40,720	Brooklyn (2)	May 11, 1947
Pittsburgh Pirates—Forbes Field	365	457	300	34,249	44,932	Brooklyn	Sept. 23, 1956
St. Louis Cardinals—Busch Stadium	351	426	310	30,500	45,770	Chicago (2)	July 12, 1931
San Francisco Giants—Seals Stadium*	365	410	355	23,100	23,192	Los Angeles	Apr. 15, 1958

* Park used in 1958.

MAJOR LEAGUE FRANCHISE SHIFTS

1953—Boston Braves (N. L.) became Milwaukee Braves. Home attendance, last season in Boston (1952), 281,278; first season in Milwaukee (1953), 1,826,397.

1954—St. Louis Browns (A. L.) became Baltimore Orioles. Home attendance, last season in St. Louis (1953), 297,238; first season in Baltimore (1954), 1,060,910.

1955—Philadelphia Athletics (A. L.) became Kansas City Athletics. Home attendance, last season in Philadelphia

(1954), 627,100; first season in Kansas City (1955), 1,393,054.

1958—New York Giants (N. L.) became San Francisco Giants. Home attendance, last season in New York (1957), 653,923; first season in San Francisco (1958), 1,272,837.

1958—Brooklyn Dodgers (N. L.) became Los Angeles Dodgers. Home attendance, last season in Brooklyn (1957), 1,028,258; first season in Los Angeles (1958), 1,845,268.

MAJOR LEAGUE ALL-STAR GAME

A.L.—American League. N.L.—National League.

Year	Date	Winning league and manager		Losing league and manager		Winning pitcher		Losing pitcher		Site	Paid attendance
		Runs		Runs							
1933	July 6	A.L. (Mack)	4	N.L. (McGraw)	2	Gomez	Hallahan			Chicago A.L.	49,200
1934	July 10	A.L. (Cronin)	9	N.L. (Terry)	7	Harder	Mungo			New York N.L.	48,363
1935	July 8	A.L. (Cochrane)	4	N.L. (Frisch)	1	Gomez	Walker			Cleveland A.L.	69,812
1936	July 7	N.L. (Grimm)	4	A.L. (McCarthy)	3	J. Dean	Grove			Boston N.L.	25,534
1937	July 7	A.L. (McCarthy)	8	N.L. (Terry)	3	Gomez	J. Dean			Washington A.L.	31,391
1938	July 6	N.L. (Terry)	4	A.L. (McCarthy)	1	Vander Meer	Gomez			Cincinnati N.L.	27,607
1939	July 11	A.L. (McCarthy)	3	N.L. (Hartnett)	1	Bridges	Lee			New York A.L.	62,892
1940	July 9	N.L. (McKechnie)	4	A.L. (Cronin)	0	Derringer	Ruffing			St. Louis N.L.	32,373
1941	July 8	A.L. (Baker)	7	N.L. (McKechnie)	5	E. Smith	Passeau			Detroit A.L.	54,674
1942	July 6	A.L. (McCarthy)	3	N.L. (Durocher)	1	Chandler	Cooper			New York N.L.	33,694
1943	July 13*	A.L. (McCarthy)	5	N.L. (Southworth)	3	Leonard	Cooper			Philadelphia A.L.	31,938
1944	July 11*	N.L. (Southworth)	7	A.L. (McCarthy)	1	Raffensberger	Hughson			Pittsburgh N.L.	29,589
1945	No game.										
1946	July 9	A.L. (O'Neill)	12	N.L. (Grimm)	0	Feller	Passeau			Boston A.L.	34,906
1947	July 8	A.L. (Cronin)	2	N.L. (Dyer)	1	Shea	Sain			Chicago N.L.	41,123
1948	July 13	A.L. (Harris)	5	N.L. (Durocher)	2	Raschi	Schmitz			St. Louis A.L.	34,009
1949	July 12	A.L. (Boudreau)	11	N.L. (Southworth)	7	Trucks	Newcombe			Brooklyn N.L.	32,577
1950	July 11	N.L. (Shotton)	4	A.L. (Stengel)	3a	Blackwell	Gray			Chicago A.L.	46,127
1951	July 10	N.L. (Sawyer)	8	A.L. (Stengel)	3	Maglie	Lopat			Detroit A.L.	52,075
1952	July 8	N.L. (Durocher)	3	A.L. (Stengel)	2b	Rush	Lemon			Philadelphia N.L.	32,785
1953	July 14	N.L. (Dressen)	5	A.L. (Stengel)	1	Spahn	Reynolds			Cincinnati N.L.	30,846
1954	July 13	A.L. (Stengel)	11	N.L. (Alston)	9	Stone	Conley			Cleveland A.L.	68,751
1955	July 12	N.L. (Durocher)	6	A.L. (Lopez)	5c	Conley	Sullivan			Milwaukee N.L.	45,314
1956	July 10	N.L. (Alston)	7	A.L. (Stengel)	3	Friend	Pierce			Washington A.L.	28,843
1957	July 9	A.L. (Stengel)	6	N.L. (Alston)	5	Bunning	Simmons			St. Louis N.L.	30,693

* Night game. aFourteen innings. bFive innings, rain. cTwelve innings.

Dodgers Set Single Game Attendance Record

A major league record for regular season single game attendance was established when the Dodgers made their debut in Los Angeles in 1958. With the San Fran-

cisco Giants as their opponents on April 18, Los Angeles drew a turnout of 78,672. The old record for a single game was 78,382, set in Cleveland in 1948.

Major League Individual All-Time Records

Highest batting average, season—Hugh Duffy, Boston (N), 1894	438
Highest batting average (15 or more years)—Ty Cobb, Detroit and Philadelphia (A), 1905-28	367
Most years batting over .300—Ty Cobb	23
Most hits—Ty Cobb	4,191
Most hits, season—George Sisler, St. Louis (A), 1920	257
Most consecutive hits, game—Wilbert Robinson, Baltimore (N), 1892	7
Most successive hits—Frank Higgins, Boston (A), 1938; Walt Dropo, Detroit, 1952	12
Most consecutive games batted safely—Joe DiMaggio, New York (A), May 15 to July 16, 1941, inclusive	56
Most long hits—Babe Ruth, Boston and New York (A), Boston (N), 1914-35 (506 2b, 136 3b, 714 home runs)	1,356
Most total bases—Ty Cobb	5,863
Most total bases, season—Babe Ruth, New York (A), 1921	457
Most total bases, game—Joe Adcock, Milwaukee vs. Brooklyn, July 31, 1954 ...	18
Most home runs—Babe Ruth	714
Most home runs, season—Babe Ruth, New York (A), 1927	60
Most home runs, 1 game—Lowe, Boston (N), 1894; Delahanty, Phila. (N), 1896; Gehrig, N. Y. (A), 1932; Klein, Phila. (N), 1936 (10 innings); Seerey, Chicago (A), 1948 (11 innings); Hodges, Brooklyn, 1950; Adcock, Milwaukee, 1954 ...	4
Most 3-base hits—Sam Crawford, Cincinnati (N), 1899-1902; Detroit (A), 1903-17	312

Most 3-base hits, season—J. Owen Wilson, Pittsburgh (N), 1912	36
Most 2-base hits—Tris E. Speaker, Boston, Cleveland, Washington, Philadelphia (A), 1907-28	793
Most 2-base hits, season—Earl W. Webb, Boston (A), 1931	67
Most singles—Ty Cobb	3,052
Most singles, season—William Keeler, Baltimore (N), 1898	202
Most runs—Ty Cobb	2,244
Most runs batted in—Babe Ruth ...	2,209
Most runs batted in, season—Hack Wilson, Chicago (N), 1930	190
Most runs batted in, single game—James L. Bottomley, St. Louis (N) vs. Brooklyn, Sept. 16, 1924	12
Most games played—Ty Cobb	3,033
Most consecutive games played—Lou Gehrig, New York (A). Streak started June 1, 1925, and stopped May 2, 1939 ...	2,130
Longest service as player—Eddie Collins, Philadelphia and Chicago (A), 1906-30; Bobby Wallace, Cleveland (N), St. Louis (A), St. Louis (N), 1894-1918 ..	25 years
Most times at bat—Ty Cobb	11,429
Most bases on balls—Babe Ruth ...	2,056
Most bases on balls, season—Babe Ruth, 1923	170
Most bases on balls, game (modern record)—Jimmy Foxx Boston (A), 1938	6
Most stolen bases—Ty Cobb	892
Most stolen bases, season (modern record)—Ty Cobb, Detroit (A), 1915	96
Fewest strikeouts, season (150 or more games)—Joe Sewell, Cleveland (A), 1925, 1929	4
Most consecutive years manager, one club—Connie Mack, Phila. (A), 1901-50 ...	50

PITCHING

Most games—Cy Young (516 in National League, 390 in American League), 1890-1911	906
Most games won—Cy Young, Cleveland (N), 1890-98; St. Louis (N), 1899-1900; Boston (A), 1901-08; Cleveland (A), 1909-11 (part); Boston (N), 1911 (part)	511
Most complete games, season—Jack Chesbro, New York (A), 1904	48
Most games, season (modern record)—Jim Konstanty, Philadelphia (N), 1950 ...	74
Most innings, season—Ed Walsh, Chicago (A), 1908	464
Lowest earned-run average, season—Ferdie Schupp, New York (N), 1916	0.90
Fewest hits in two consecutive games—John Vander Meer, Cincinnati (N), 1938 (both no-hit games)	0

Most games won, season (modern record)—Jack Chesbro, New York (A), 1904 ...	41
Most consecutive games won, season—Tim Keefe, New York (N), 1888; Rube Marquard, New York (N), 1912	19
Most shutout games—Walter Johnson, Washington (A), 1907-27	113
Most shutout games, season—Grover Alexander, Philadelphia (N), 1916	16
Most consecutive shutout innings—Walter Johnson, 1913	56
Most strikeouts—Walter Johnson ...	3,497
Most strikeouts, season (modern record)—Bobby Feller, Cleveland (A), 1946 ...	348
Most strikeouts in 9 innings (1901 to date)—Bobby Feller, Cleveland (A) vs. Detroit, Oct. 2, 1938	18

The First World Series No-Hitter

Don Larsen of the New York Yankees pitched the first no-run no-hit game in World Series history in 1956 and hurled a perfect game in so doing. Facing the Brooklyn Dodgers at the Yankee Stadium

in the fifth game of the series on Oct. 8, Larsen retired 27 batters in a row. The righthander made only 97 pitches. The Yankees won, 2 to 0. The attendance was 64,519. The box score:

BROOKLYN (N)

	ab	r	h	po	a	e
Gilliam, 2b.....	3	0	0	2	0	0
Reese, ss.....	3	0	0	4	2	0
Snider, cf.....	3	0	0	1	0	0
Robinson, 3b.....	3	0	0	2	4	0
Hodges, 1b.....	3	0	0	5	1	0
Amoros, rf.....	3	0	0	3	0	0
Furillo, lf.....	3	0	0	0	0	0
Campanella, c.....	3	0	0	7	2	0
Maglie, p.....	2	0	0	0	1	0
aMitchell.....	1	0	0	0	0	0
Totals.....	27	0	0	24	10	0

NEW YORK (A)

	ab	r	h	po	a	e
Bauer, rf.....	4	0	1	4	0	0
Collins, 1b.....	4	0	1	7	0	0
Mantle, cf.....	3	1	1	4	0	0
Berra, c.....	3	0	0	7	0	0
Slaughter, lf.....	2	0	0	1	0	0
Martin, 2b.....	3	0	1	3	4	0
McDougald, ss.....	2	0	0	0	2	0
Carey, 3b.....	3	1	1	1	1	0
Larsen, p.....	2	0	0	0	1	0
Totals.....	26	2	5	27	8	0

aCalled out on strikes for Maglie in 9th.

Brooklyn.....	0	0	0	0	0	0	—	0
New York.....	0	0	0	1	0	0	x	—

Runs batted in—Mantle, Bauer. Home run—Mantle. Sacrifice—Larsen. Double plays—Reese and Hodges; Hodges, Campanella, Robinson, Campanella and Robinson. Left on bases—Brooklyn 0, New York 3. Bases on balls—Off Maglie 2 (Slaughter, McDougald). Struck out—By Larsen 7 (Gilliam, Reese, Hodges, Campanella, Snider, Gilliam, Mitchell), Maglie 5 (Martin, Collins 2, Larsen, Bauer). Runs and earned runs—Off Larsen 0-0, Maglie 2-2. Umpires—Pinelli (N), plate; Soar (A), first base; Boggess (N), second base; Napp (A), third base; Gorman (N), left field; Runge (A), right field. Time of game—2:06.

JUNIOR WORLD SERIES

International League vs. American Association

No series 1905, 1908-16, 1918-19, 1935.

Games				Games			
Year	Winner	W	L	Year	Winner	W	L
1904	Buffalo (IL)	2	1	1938	Kansas City (AA)	4	3
1906*	Buffalo (IL)	3	2	1939	Louisville (AA)	4	3
1907	Toronto (IL)	4	1	1940	Newark (IL)	4	2
1917	Indianapolis (AA)	4	1	1941	Columbus (AA)	4	2
1920	Baltimore (IL)	5	1	1942	Columbus (AA)	4	1
1921	Louisville (AA)	5	3	1943	Columbus (AA)	4	1
1922	Baltimore (IL)	5	2	1944	Baltimore (IL)	4	2
1923	Kansas City (AA)	5	4	1945	Louisville (AA)	4	2
1924*	St. Paul (AA)	5	4	1946	Montreal (IL)	4	2
1925	Baltimore (IL)	5	3	1947	Milwaukee (AA)	4	3
1926	Toronto (IL)	5	0	1948	Montreal (IL)	4	1
1927	Toledo (AA)	5	1	1949	Indianapolis (AA)	4	2
1928*	Indianapolis (AA)	5	1	1950	Columbus (AA)	4	1
1929	Kansas City (AA)	5	4	1951	Milwaukee (AA)	4	2
1930	Rochester (IL)	5	3	1952	Rochester (IL)	4	3
1931	Rochester (IL)	5	3	1953	Montreal (IL)	4	1
1932	Newark (IL)	4	2	1954	Louisville (AA)	4	2
1933	Columbus (AA)	5	3	1955	Minneapolis (AA)	4	3
1934	Columbus (AA)	5	4	1956	Indianapolis (AA)	4	0
1936	Milwaukee (AA)	4	1	1957	Denver (AA)	4	1
1937	Newark (IL)	4	3				

* Played tie game.

National Baseball Congress Champions

(Non-Pro)

1935	Bismarck (N. D.)	Corwin-Churchill	1947	Ft. Wayne (Ind.)	General Electrics
1936	Duncan (Okla.)	Halliburtons	1948	Ft. Wayne (Ind.)	General Electrics
1937	Enid (Okla.)	Eason Oilers	1949	Ft. Wayne (Ind.)	General Electrics
1938	Buford (Ga.)	Bona Allens	1950	Ft. Wayne (Ind.)	Capeharts
1939	Duncan (Okla.)	Halliburtons	1951	Sinton (Tex.)	Plymouth Oilers
1940	Enid (Okla.)	Champlins	1952	Fort Meyer (Va.)	Colonials
1941	Enid (Okla.)	Champlins	1953	Fort Leonard Wood (Mo.)	Hilltoppers
1942	Wichita (Kans.)	Boeing Bombers	1954	Wichita (Kans.)	Boeing Bombers
1943	Camp Wheeler (Ga.)	Spokes	1955	Wichita (Kans.)	Boeing Bombers
1944	Sherman Field (Kans.)	Flyers	1956	Ft. Wayne (Ind.)	Dairymen
1945	Enid (Okla.)	Army Air Field	1957	Sinton (Tex.)	Plymouth Oilers
1946	St. Joseph (Mich.)	Auscos			

FAMOUS BASEBALL NICKNAMES

Nickname	Given name(s)	Surname	Nickname	Given name(s)	Surname
Babe	Charles Benjamin	Adams	Hans	John Bernard	Lobert
Smokey	Walter Emmons	Alston	Whitey	Carroll Walter	Lockman
Cap	Adrian Constantine	Anson	Schnozz	Ernesto Natali	Lombardi
Home Run	John Franklin	Baker	Heinie	Henry Emmett	Manush
Gus	David Russell	Bell	The Barber	Salvatore Anthony	Maglie
Chief	Charles Albert	Bender	Rabbit	Walter James	Maranville
Yogi	Lawrence Peter	Berra	Slats	Martin Whiteford	Marion
Three-Finger	Mordecai Peter	Brown	Rube	Richard William	Marquard
Smoky	Forrest Harrill	Burgess	Billy	Alfred Manuel	Martin
Donie	Owen Joseph	Bush	Pepper	John Leonard	Martin
Chico	Alfonso	Carrasquel	Big Six	Christopher	Mathewson
Mickey	Gordon Stanley	Cochrane	Iron Man	Joseph Jerome	McGinnity
Doc	Roger Maxwell	Cramer	Ducky	Joseph Michael	Medwick
Wahoo	Samuel Earl	Crawford	Irish	Emil Frederick	Meusel
Kiki	Hazen Shirley	Cuyler	Bing	Edmund John	Miller
Dizzy	Jay Hanna	Dean	Minnie	Saturnino Orestes	Minoso
Daffy	Paul Dee	Dean	The Man	Stanley Frank	Musial
Yankee Clipper	Joseph Paul	DiMaggio	Bobo	Louis Norman	Newsom
Lippy	Leo Ernest	Durocher	Lefty	Frank Joseph	O'Doul
Buck	William Buckingham	Ewing	Pee Wee	Harold Henry	Reese
Whitey	Edward Charles	Ford	Muddy	Herold Dominic	Ruel
Nellie	Jacob Nelson	Fox	Red	Charles Herbert	Ruffing
Junior	James	Gilliam	Babe	George Herman	Ruth
Lefty	Vernon	Gomez	Red	Albert Fred	Schoendienst
Flash	Joseph Lowell	Gordon	Twinkletoes	George Alexander	Selkirk
Goose	Leon Allen	Goslin	Country	Enos Bradsher	Slaughter
Heinie	Henry Knight	Groh	Duke	Edwin Donald	Snider
Lefty	Robert Moses	Grove	Casey	Charles Dillon	Stengel
Mule	George William	Haas	Birdie	George Robert	Tebbetts
Bump	Irving Darius	Hadley	Pie	Harold Joseph	Traynor
Chick	Charles James	Hafey	Dazzy	Arthur Charles	Vance
Bubbles	Eugene Franklin	Hargrave	Arky	Joseph Floyd	Vaughan
Bucky	Stanley Raymond	Harris	Mickey	James Barton	Vernon
Gabby	Charles Leo	Hartnett	Rube	George Edward	Waddell
Babe	Floyd Caves	Herman	Honus	John Peter	Wagner
Pinky	Michael Franklin	Higgins	Rube	George Francis	Walberg
Rajah	Rogers	Hornsby	Dixie	Frederick E.	Walker
Stonewall	Travis Calvin	Jackson	Bucky	William Henry	Walters
Baby Doll	William C.	Jacobson	Little Poison	Lloyd James	Waner
Puddin' Head	Willie Edward	Jones	Big Poison	Paul Glee	Waner
High Pockets	George Lange	Kelly	Cy	Frederick	Williams
Red	Ralph	Kress	Splendid Splinter	Theodore Samuel	Williams
Cookie	Harry Arthur	Lavagetto	Hack	Lewis Robert	Wilson
Dutch	Emil John	Leonard	Cy	Denton True	Young

SOFTBALL

Source: Amateur Softball Association.

World Amateur Champions

MEN		1955	Raybestos Cardinals, Stratford, Conn.
		1956-57	Clearwater (Fla.) Bombers
		WOMEN	
1933	J. L. Gillis, Chicago	1933	Great Northerns, Chicago
1934	Ke-Nash-A's, Kenosha, Wis.	1934	Hart Motors, Chicago
1935	Crimson Coaches, Toledo, Ohio	1935	Bloomer Girls, Cleveland
1936	Kodak Park, Rochester, N. Y.	1936-37	National Mfg. Co., Cleveland
1937	Briggs Mfg. Co., Detroit	1938-39	J. J. Kreig's, Alameda, Calif.
1938	Pohlers, Cincinnati	1940	Arizona Ramblers, Phoenix, Ariz.
1939	Carr's, Covington, Ky.	1941	Higgins, Midgets, Tulsa, Okla.
1940	Kodak Park, Rochester, N. Y.	1942-43	Jax Maids, New Orleans
1941	Bendix Brakes, South Bend, Ind.	1944	Lind & Pomeroy, Portland, Ore.
1942	Deep Rock Oilers, Tulsa, Okla.	1945-47	Jax Maids, New Orleans
1943-44	Hammer Field, Fresno, Calif.	1948-49	Arizona Ramblers, Phoenix
1945-47	Zollners, Ft. Wayne, Ind.	1950-52	Orange (Calif.) Lionettes
1948	Briggs Beautyware, Detroit	1953	Betsy Ross Rockets, Fresno, Calif.
1949	Tip Top Tailors, Toronto, Ont.	1954	Leach Motors Rockets, Fresno, Calif.
1950	Clearwater (Fla.) Bombers	1955-56	Orange (Calif.) Lionettes
1951	Dow Chemical Co., Midland, Mich.	1957	Hacienda Rockets, Fresno, Calif.
1952-53	Briggs Beautyware, Detroit		
1954	Clearwater (Fla.) Bombers		

FOOTBALL

THE PASTIME of kicking a ball around goes back beyond the limits of recorded history. Ancient savage tribes played football of a primitive kind. There was a ball-kicking game played by Athenians and Spartans and Corinthians 2500 years ago and the Greeks had a name for it: *Episkuros*. The Romans had a somewhat similar game called *Harpastum* and are supposed to have carried the game with them when they invaded the British Isles in the First Century, B.C.

Undoubtedly the game known in the United States as Football traces directly to the English game of Rugby, though the modifications have been many and rather sweeping in some directions. There was informal football on our college lawns well over a century ago and an annual Freshman-Sophomore series of "scrimmages" began at Yale in 1840. But the first formal intercollegiate football game in this country was the Princeton-Rutgers contest at New Brunswick, N. J., on Nov. 8, 1869, with Rutgers winning by 6 goals to 4.

In those old days games were played with twenty-five, twenty, fifteen or eleven men on a side by mutual agreement. In 1880 there was a football convention at

which Walter Camp of Yale persuaded the delegates to agree to a rule calling for eleven players on a side. In 1882 there was adopted the rule requiring the offensive team to make 5 yards in three downs or surrender the ball to its opponents. The game grew so rough that it was attacked as brutal by many critics and some colleges abandoned the sport. Conditions were so bad in 1906 that President Theodore Roosevelt, an enthusiast for all sports, called a meeting of Yale, Harvard, and Princeton representatives at the White House in the hope of reforming and improving the game. The outcome was that the game, with the forward pass introduced and some other modifications of the rules inserted, became faster and cleaner and gradually grew to the tremendous popularity it enjoys today.

Professional football, now firmly established, is an outgrowth of intercollegiate football. The first professional game was played in 1895 at Latrobe, Pa. The National Football League was founded in 1921. The All-America Conference went into action in 1946. At the end of the 1949 season the two major play-for-pay circuits merged, retaining the name of the older league.

Famous Series Records

Army-Navy

	A	N		A	N		A	N		A	N		A	N
1886	0	24	1905	6	6	1916	15	7	1930	6	0	1940	0	14
1891	32	16	1906	0	10	1919	0	6	1931	17	7	1941	6	14
1892	4	12	1907	0	6	1920	0	7	1932	20	0	1942	0	14
1893	4	6	1908	6	4	1921	0	7	1933	12	7	1943	0	13
1899	17	5	1910	0	3	1922	17	14	1934	0	3	1944	23	7
1900	7	11	1911	0	3	1923	0	0	1935	28	6	1945	32	13
1901	11	5	1912	0	6	1924	12	0	1936	0	7	1946	21	18
1902	22	8	1913	22	9	1925	10	3	1937	6	0	1947	21	0
1903	40	5	1914	20	0	1926	21	21	1938	14	7	1948	21	21
1904	11	0	1915	14	0	1927	14	9	1939	0	10	1949	38	0

Army-Notre Dame

	A	ND		A	ND		A	ND		A	ND		A	ND
1913	13	35	1920	17	27	1926	0	7	1932	0	21	1938	7	19
1914	20	7	1921	0	28	1927	18	0	1933	12	13	1939	0	14
1915	0	7	1922	0	0	1928	6	12	1934	6	12	1940	0	7
1916	30	10	1923	0	13	1929	0	7	1935	6	6	1941	0	0
1917	2	7	1924	7	13	1930	6	7	1936	6	20	1942	0	13
1919	9	12	1925	27	0	1931	12	0	1937	0	7	1943	0	26

Harvard-Yale

	H	Y		H	Y		H	Y		H	Y		H	Y
1875	4g	0g	1891	0	10	1906	0	6	1921	10	3	1934	0	14
1876	0g	1g	1892	0	6	1907	0	12	1922	10	3	1935	7	14
1878	0g	1g	1893	0	6	1908	4	0	1923	0	13	1936	13	14
1879	0g	0g	1894	4	12	1909	0	8	1924	6	19	1937	13	6
1880	0g	1g	1897	0	0	1910	0	0	1925	0	0	1938	7	0
1881	0g	0g	1898	17	0	1911	0	0	1926	7	12	1939	7	20
1882	0g	1g	1899	0	0	1912	20	0	1927	0	14	1940	28	0
1883	2	23	1900	0	28	1913	15	5	1928	17	0	1941	14	0
1884	0	52	1901	22	0	1914	36	0	1929	10	6	1942	3	7
1886	4	29	1902	0	23	1915	41	0	1930	13	0	1945	0	28
1887	8	17	1903	0	16	1916	3	6	1931	0	3	1946	14	27
1889	0	6	1904	0	12	1919	10	3	1932	0	19	1947	21	31
1890	12	6	1905	0	6	1920	9	0	1933	19	6	1948	20	7

NATIONAL COLLEGE FOOTBALL CHAMPIONS

The "National Collegiate A. A. Football Guide" recognizes as unofficial national champion the team selected each year by press association polls. Where The Associated Press poll (of writers) does not agree with the United Press International poll (of coaches), the guide lists both teams selected. Prior to the press polls, the Rissman and Knute Rockne trophies, symbolic of the national title, were awarded annually from 1924 to 1936.

1924	Notre Dame	1936	Minnesota	1948	Michigan
1925	Dartmouth	1937	Pittsburgh	1949	Notre Dame
1926	Stanford	1938	Texas Christian	1950	Oklahoma
1927	Illinois	1939	Texas A. & M.	1951	Tennessee
1928	So. California	1940-41	Minnesota	1952	Michigan State
1929-30	Notre Dame	1942	Ohio State	1953	Maryland
1931	So. California	1943	Notre Dame	1954	Ohio State and U. C. L. A.
1932-33	Michigan	1944-45	Army	1955-56	Oklahoma
1934	Minnesota	1946-47	Notre Dame	1957	Auburn and Ohio State
1935	So. Methodist				

PROFESSIONAL FOOTBALL

National League Champions

Year	Team	Won	Lost	Tied	Pct.	Year	Team	Won	Lost	Tied	Pct.
1921	Bears (Staley's)	10	1	1	.909	1942	Chicago Bears (W)	11	0	0	1.000
1922	Canton Bulldogs	10	0	2	1.000	1943	*Chicago Bears (W)	8	1	1	.889
1923	Canton Bulldogs	11	0	1	1.000	1943	Washington Redskins (E)	6	3	1	.667
1924	Cleveland Bulldogs	7	1	1	.875	1944	*Green Bay Packers (W)	8	2	0	.800
1925	Chicago Cardinals	11	2	1	.846	1944	New York Giants (E)	8	1	1	.889
1926	Frankford Yellow Jackets	14	1	1	.933	1945	*Cleveland Rams (W)	9	1	0	.900
1927	New York Giants	11	1	1	.917	1945	Washington Redskins (E)	8	2	0	.800
1928	Providence Steamrollers	8	1	2	.888	1946	*Chicago Bears (W)	8	2	1	.800
1929	Green Bay Packers	12	0	1	1.000	1946	New York Giants (E)	7	3	1	.700
1930	Green Bay Packers	11	3	1	.786	1947	*Chicago Cardinals (W)	9	3	0	.750
1931	Green Bay Packers	12	2	0	.857	1947	Philadelphia Eagles (E)	9	4	0	.692
1932	Chicago Bears	7	1	6	.875	1948	*Philadelphia Eagles (E)	9	2	1	.818
1933	*Chicago Bears (W)	10	2	1	.833	1948	Chicago Cardinals (W)	11	1	0	.917
1933	New York Giants (E)	11	3	0	.786	1949	*Philadelphia Eagles (E)	11	1	0	.917
1934	*New York Giants (E)	8	5	0	.615	1949	Los Angeles Rams (W)	8	2	2	.800
1934	Chicago Bears (W)	13	0	0	1.000	1950	*Cleveland Browns (A)	11	2	0	.846
1935	*Detroit Lions (W)	7	3	2	.700	1950	Los Angeles Rams (N)	10	3	0	.769
1935	New York Giants (E)	9	3	0	.750	1951	*Los Angeles Rams (N)	8	4	0	.667
1936	*Green Bay Packers (W)	10	1	1	.909	1951	Cleveland Browns (A)	11	1	0	.917
1936	Boston Redskins (E)	7	5	0	.587	1952	*Detroit Lions (N)	9	3	0	.750
1937	*Washington Redskins (E)	8	3	0	.727	1952	Cleveland Browns (A)	8	4	0	.667
1937	Chicago Bears (W)	9	1	1	.900	1953	*Detroit Lions (W)	10	2	0	.833
1938	*New York Giants (E)	8	2	1	.800	1953	Cleveland Browns (E)	11	1	0	.917
1938	Green Bay Packers (W)	8	3	0	.727	1954	*Cleveland Browns (E)	9	3	0	.750
1939	*Green Bay Packers (W)	9	2	0	.818	1954	Detroit Lions (W)	9	2	1	.818
1939	New York Giants (E)	9	1	1	.900	1955	*Cleveland Browns (E)	9	2	1	.818
1940	*Chicago Bears (W)	8	3	0	.727	1955	Los Angeles Rams (W)	8	3	1	.727
1940	Washington Redskins (E)	9	2	0	.818	1956	*New York Giants (E)	8	3	1	.727
1941	*Chicago Bears (W)	10	1	0	.909	1956	Chicago Bears (W)	9	2	1	.818
1941	New York Giants (E)	8	3	0	.727	1957	Cleveland Browns (E)	9	2	1	.818
1942	*Washington Redskins (E)	10	1	0	.909	1957*	Detroit Lions (W)	8	4	0	.667

* Won title play-off. (W) Western Division champion. (E) Eastern Division champion. League divided into American (A) and National (N) conferences in 1950. In 1953 the league returned to the Eastern-Western set-up.

CHAMPIONSHIP PLAY-OFF RESULTS

1933	Chicago Bears 23, New York 21.	1946	Chicago Bears 24, New York 14.
1934	New York 30, Chicago Bears 13.	1947	Chicago Cardinals 28, Philadelphia 21.
1935	Detroit 26, New York 7.	1948	Philadelphia 7, Chicago Cardinals 0.
1936	Green Bay 21, Boston 6.	1949	Philadelphia 14, Los Angeles 0.
1937	Washington 28, Chicago Bears 21.	1950	Cleveland 30, Los Angeles 28.
1938	New York 23, Green Bay Packers 17.	1951	Los Angeles 24, Cleveland 17.
1939	Green Bay 27, New York 0.	1952	Detroit 17, Cleveland 7.
1940	Chicago Bears 73, Washington 0.	1953	Detroit 17, Cleveland 16.
1941	Chicago Bears 37, New York 9.	1954	Cleveland 56, Detroit 10.
1942	Washington 14, Chicago Bears 6.	1955	Cleveland 38, Los Angeles 14.
1943	Chicago Bears 41, Washington 21.	1956	New York 47, Chicago Bears 7.
1944	Green Bay 14, New York 7.	1957	Detroit 59, Cleveland 14.
1945	Cleveland 15, Washington 14.		

RECORD OF ANNUAL POSTSEASON FOOTBALL GAMES

*Source: Official N.C.A.A. Football Guide***Rose Bowl (Pasadena, Calif.)**

1902	Michigan 49, Stanford 0
1916	Washington State 14, Brown 0
1917	Oregon 14, Pennsylvania 0
1918	Mare Island Marines 19, Camp Lewis 7
1919	Great Lakes 17, Mare Island Marines 0
1920	Harvard 7, Oregon 6
1921	California 28, Ohio State 0
1922	Washington & Jefferson 0, California 0
1923	Southern California 14, Penn State 3
1924	Navy 14, Washington 14
1925	Notre Dame 27, Stanford 10
1926	Alabama 20, Washington 19
1927	Alabama 7, Stanford 7
1928	Stanford 7, Pittsburgh 6
1929	Georgia Tech 8, California 7
1930	Southern California 47, Pittsburgh 14
1931	Alabama 24, Washington State 0
1932	Southern California 21, Tulane 12
1933	Southern California 35, Pittsburgh 0
1934	Columbia 7, Stanford 0
1935	Alabama 29, Stanford 13
1936	Stanford 7, Southern Methodist 0
1937	Pittsburgh 21, Washington 0
1938	California 13, Alabama 0
1939	Southern California 7, Duke 3
1940	Southern California 14, Tennessee 0
1941	Stanford 21, Nebraska 13
1942	Oregon State 20, Duke 16*
1943	Georgia 9, U. C. L. A. 0
1944	Southern California 29, Washington 0
1945	Southern California 25, Tennessee 0
1946	Alabama 34, Southern California 14
1947	Illinois 45, U. C. L. A. 14
1948	Michigan 49, Southern California 0
1949	Northwestern 20, California 14
1950	Ohio State 17, California 14
1951	Michigan 14, California 6
1952	Illinois 40, Stanford 7
1953	Southern California 7, Wisconsin 0
1954	Michigan State 28, U. C. L. A. 20
1955	Ohio State 20, Southern California 7
1956	Michigan State 17, U. C. L. A. 14
1957	Iowa 35, Oregon State 19
1958	Ohio State 10, Oregon 7

* Played at Durham, N. C.

Cotton Bowl (Dallas, Tex.)

1937	Texas Christian 16, Marquette 6
1938	Rice 28, Colorado 14
1939	St. Mary's (Calif.) 20, Texas Tech 13
1940	Clemson 6, Boston College 3
1941	Texas A & M 13, Fordham 12
1942	Alabama 29, Texas A & M 21
1943	Texas 14, Georgia Tech 7
1944	Randolph Field 7, Texas 7
1945	Oklahoma A & M 34, Texas Christian 0
1946	Texas 40, Missouri 27
1947	Louisiana State 0, Arkansas 0
1948	Southern Methodist 13, Penn State 13
1949	Southern Methodist 21, Oregon 13
1950	Rice 27, North Carolina 13
1951	Tennessee 20, Texas 14
1952	Kentucky 20, Texas Christian 7
1953	Texas 16, Tennessee 0
1954	Rice 28, Alabama 6
1955	Georgia Tech 14, Arkansas 6
1956	Mississippi 14, Texas Christian 13
1957	Texas Christian 28, Syracuse 27
1958	Navy 20, Rice 7

Sugar Bowl (New Orleans, La.)

1935	Tulane 20, Temple 14
1936	Texas Christian 3, Louisiana State 2
1937	Santa Clara 21, Louisiana State 14
1938	Santa Clara 6, Louisiana State 0
1939	Texas Christian 15, Carnegie Tech 7
1940	Texas A & M 14, Tulane 13
1941	Boston College 19, Tennessee 13
1942	Fordham 2, Missouri 0
1943	Tennessee 14, Tulsa 7
1944	Georgia Tech 20, Tulsa 18
1945	Duke 29, Alabama 26
1946	Oklahoma A & M 33, St. Mary's (Calif.) 13
1947	Georgia 20, North Carolina 10
1948	Texas 27, Alabama 7
1949	Oklahoma 14, North Carolina 6
1950	Oklahoma 35, Louisiana State 0
1951	Kentucky 13, Oklahoma 7
1952	Maryland 28, Tennessee 13
1953	Georgia Tech 24, Mississippi 7
1954	Georgia Tech 42, West Virginia 19
1955	Navy 21, Mississippi 0
1956	Georgia Tech 7, Pittsburgh 0
1957	Baylor 13, Tennessee 7
1958	Mississippi 39, Texas 7

Orange Bowl (Miami, Fla.)

1933	Miami 7, Manhattan 0
1934	Duquesne 33, Miami 7
1935	Bucknell 26, Miami 0
1936	Catholic University 20, Mississippi 19
1937	Duquesne 13, Mississippi State 12
1938	Alabama Poly. 6, Michigan State 0
1939	Tennessee 17, Oklahoma 0
1940	Georgia Tech 21, Missouri 7
1941	Mississippi State 14, Georgetown 7
1942	Georgia 40, Texas Christian 26
1943	Alabama 37, Boston College 21
1944	Louisiana State 19, Texas A & M 14
1945	Tulsa 26, Georgia Tech 12
1946	Miami 13, Holy Cross 6
1947	Rice 8, Tennessee 0
1948	Georgia Tech 20, Kansas 14
1949	Texas 41, Georgia 28
1950	Santa Clara 21, Kentucky 13
1951	Clemson 15, Miami (Fla.) 14
1952	Georgia Tech 17, Baylor 14
1953	Alabama 61, Syracuse 6
1954	Oklahoma 7, Maryland 0
1955	Duke 36, Nebraska 7
1956	Oklahoma 20, Maryland 6
1957	Colorado 27, Clemson 21
1958	Oklahoma 48, Duke 21

Collegians Triumph in All-Star Game

The Detroit Lions, professional football champions of 1957, were trounced, 35-19, by the collegians in the 1958 renewal of the annual All-Star game in Chicago. It was the eighth victory for the College All-Stars in the series. The pros have won 15 times, while two other games ended in ties. Jim Ninowski of Michigan State, who threw two touchdown passes, and Bobby Mitchell of Illinois, who caught them, were co-winners of the game's most valuable college player award.

LAWN TENNIS

LAWN TENNIS is a comparatively modern modification of the ancient game of court tennis. Major Walter Clopton Wingfield thought that something like court tennis might be played outdoors on lawns and in December, 1873, at Nantclwyd, Wales, he introduced his new game under the name of *Sphairistike* at a lawn party. The game was a success and spread rapidly, but the name was a total failure and almost immediately disappeared when all the players and spectators began to refer to the new game as "lawn tennis." In the early part of 1874 a young lady named Mary Ewing Outerbridge returned from Bermuda to New York, bringing with her the implements and necessary equipment of the new game that she had obtained from a British Army supply store in Bermuda. Miss Outerbridge and friends played the first game of lawn tennis in the United States on the grounds of the Staten Island

Cricket and Baseball Club in the spring of 1874.

For a few years the new game went along in haphazard fashion under varying rules. Tennis balls were of no standard size or texture. The nets were set at different heights up to 5 feet on the side and 4 feet in the middle. Some courts were marked out in hour-glass shape, narrow in the middle and wide at both ends. But about 1880 standard measurements for the court and standard equipment within definite limits became the rule. In 1881 the United States Lawn Tennis Association was formed and conducted the first national championship at Newport, R. I. The international matches for the Davis Cup began with a series between the British and United States players on the courts of the Longwood Cricket Club, Chestnut Hill, Mass., in 1900, with the home players winning.

Lawn Tennis Statistics

Source: The Official U.S.L.T.A. Yearbook and Tennis Guide.

DAVIS CUP CHALLENGE ROUND RESULTS

MEN

No matches in 1901, 1910, 1915-18, and 1940-45.

Year	Result	Where played
1900	United States 5, British Isles 0.....	Chestnut Hill
1902	United States 3, British Isles 2.....	Brooklyn
1903	British Isles 4, United States 1.....	Chestnut Hill
1904	British Isles 5, Belgium 0.....	Wimbledon
1905	British Isles 5, United States 0.....	Wimbledon
1906	British Isles 5, United States 0.....	Wimbledon
1907	Australasia 3, British Isles 2.....	Wimbledon
1908	Australasia 3, United States 2.....	Melbourne
1909	Australasia 5, United States 0.....	Sydney
1911	Australasia 5, United States 0.....	Christchurch
1912	British Isles 3, Australasia 2.....	Melbourne
1913	United States 3, British Isles 2.....	Wimbledon
1914	Australasia 3, United States 2.....	Forest Hills
1919	Australasia 4, British Isles 1.....	Sydney
1920	United States 5, Australasia 0.....	Auckland
1921	United States 5, Japan 0.....	Forest Hills
1922	United States 4, Australasia 1.....	Forest Hills
1923	United States 4, Australasia 1.....	Forest Hills
1924	United States 5, Australasia 0.....	Philadelphia
1925	United States 5, France 0.....	Philadelphia
1926	United States 4, France 1.....	Philadelphia
1927	France 3, United States 2.....	Philadelphia
1928	France 4, United States 1.....	Paris

1929	France 3, United States 2.....	Paris
1930	France 4, United States 1.....	Paris
1931	France 3, Great Britain 2.....	Paris
1932	France 3, United States 2.....	Paris
1933	Great Britain 3, France 2.....	Paris
1934	Great Britain 4, United States 1.....	Wimbledon
1935	Great Britain 5, United States 0.....	Wimbledon
1936	Great Britain 3, Australia 2.....	Wimbledon
1937	United States 4, Great Britain 1.....	Wimbledon
1938	United States 3, Australia 2.....	Philadelphia
1939	Australia 3, United States 2.....	Haverford
1946	United States 5, Australia 0.....	Melbourne
1947	United States 4, Australia 1.....	Forest Hills
1948	United States 5, Australia 0.....	Forest Hills
1949	United States 4, Australia 1.....	Forest Hills
1950	Australia 4, United States 1.....	Forest Hills
1951	Australia 3, United States 2.....	Sydney
1952	Australia 4, United States 1.....	Adelaide
1953	Australia 3, United States 2.....	Melbourne
1954	United States 3, Australia 2.....	Sydney
1955	Australia 5, United States 0.....	Forest Hills
1956	Australia 5, United States 0.....	Adelaide
1957	Australia 3, United States 2.....	Melbourne

WIGHTMAN CUP RECORD

WOMEN

Year	Result	Where played
1923	United States 7, England 0.....	Forest Hills
1924	England 6, United States 1.....	Wimbledon
1925	England 4, United States 3.....	Forest Hills
1926	United States 4, England 3.....	Wimbledon
1927	United States 5, England 2.....	Forest Hills
1928	England 4, United States 3.....	Wimbledon
1929	United States 4, England 3.....	Forest Hills
1930	England 4, United States 3.....	Wimbledon
1931	United States 5, England 2.....	Forest Hills
1932	United States 4, England 3.....	Wimbledon
1933	United States 4, England 3.....	Forest Hills
1934	United States 5, England 2.....	Wimbledon
1935	United States 4, England 3.....	Forest Hills
1936	United States 4, England 3.....	Wimbledon

1937	United States 6, England 1.....	Forest Hills
1938	United States 5, England 2.....	Wimbledon
1939	United States 5, England 2.....	Forest Hills
1946	United States 7, England 0.....	Wimbledon
1947	United States 7, England 0.....	Forest Hills
1948	United States 6, England 1.....	Wimbledon
1949	United States 7, England 0.....	Haverford
1950	United States 7, England 0.....	Wimbledon
1951	United States 6, England 1.....	Longwood
1952	United States 7, England 0.....	Wimbledon
1953	United States 7, England 0.....	Rye, N. Y.
1954	United States 6, England 0.....	Wimbledon
1955	United States 6, England 1.....	Rye, N. Y.
1956	United States 5, England 2.....	Wimbledon
1957	United States 6, England 1.....	Sewickley, Pa.

UNITED STATES CHAMPIONS

Men's Singles

1881-87—Richard D. Sears	1905—Beals C. Wright	1929—William T. Tilden II	1943—Joseph Hunt
1888-89—Henry W. Slocum, Jr.	1906—William J. Clothier	1930—John H. Doeg	1944-45—Frank Parker
1890-92—Oliver S. Campbell	1907-11—William A. Larned	1931-32—H. E. Vines, Jr.	1946-47—Jack Kramer
1893-94—Robert D. Wrenn	1912-13—M. E. McLoughlin*	1933-34—Fred J. Perry	1948-49—Richard Gonzales
1895—Fred H. Hovey	1914—R. N. Williams II	1935—Wilmer L. Allison	1950—Arthur Larsen
1896-97—Robert D. Wrenn	1915—William Johnston	1936—Fred J. Perry	1951-52—Frank Sedgman
1898-1900—Malcolm D. Whitman	1916—R. N. Williams II	1937-38—J. Donald Budge	1953—Tony Trabert
1901-02—William A. Larned	1917-18—R. Lindley Murray†	1939—Robert L. Riggs	1954—E. Victor Seixas, Jr.
1903—Hugh L. Doherty	1919—William Johnston	1940—Donald McNeill	1955—Tony Trabert
1904—Holcombe Ward	1920-25—William T. Tilden II	1941—Robert L. Riggs	1956—Ken Rosewall
	1926-27—Jean Rene Lacoste	1942—Frederick R. Schroeder, Jr.	1957—Mal Anderson
	1928—Henri Cochet		

* Challenge round abandoned in 1912. † Patriotic tournament in 1917.

Men's Doubles

1881—C. M. Clark-F. W. Taylor	1928—G. M. Lott, Jr.-V. F. Hennessey
1882-84—R. D. Sears-James Dwight	1929-30—G. M. Lott, Jr.-J. H. Doeg
1885—R. D. Sears-J. S. Clark	1931—W. L. Allison-John Van Ryn
1886-87—R. D. Sears-James Dwight	1932—E. H. Vines, Jr.-Keith Gledhill
1888—O. S. Campbell-V. G. Hall	1933-34—G. M. Lott, Jr.-L. R. Stoefen
1889—H. W. Slocum, Jr.-H. A. Taylor	1935—W. L. Allison-John Van Ryn
1890—V. G. Hall-Clarence Hobart	1936—J. D. Budge-C. G. Mako
1891-92—O. S. Campbell-R. P. Huntington, Jr.	1937—Baron G. von Cramm-Henner Henkel
1893-94—Clarence Hobart-F. H. Hovey	1938—J. D. Budge-C. G. Mako
1895—M. G. Chace-R. D. Wrenn	1939—A. K. Quist-J. E. Bromwich
1896—C. B. Neel-S. R. Neel	1940-41—Jack Kramer-F. R. Schroeder, Jr.
1897-98—L. E. Ware-G. P. Sheldon, Jr.	1942—Gardnar Mulloy-W. F. Talbert
1899-1901—Holcombe Ward-D. F. Davis	1943—Jack Kramer-F. A. Parker
1902-03—R. F. Doherty-H. L. Doherty	1944—Don McNeill-Robert Falkenburg
1904-1906—Holcombe Ward-B. C. Wright	1945—Gardnar Mulloy-W. F. Talbert
1907-10—H. H. Hackett-F. B. Alexander	1946—Gardnar Mulloy-W. F. Talbert
1911—R. D. Little-G. F. Touchard	1947—Jack Kramer-F. R. Schroeder, Jr.
1912-14—M. E. McLoughlin-T. C. Bundy	1948—Gardnar Mulloy-W. F. Talbert
1915-16—William Johnston-C. J. Griffin	1949—John Bromwich-William Sidwell
1917—F. B. Alexander-H. A. Throckmorton*	1950—John Bromwich-Frank Sedgman
1918—W. T. Tilden II-Vincent Richardst	1951—Frank Sedgman-Kenneth McGregor
1919—N. E. Brookes-G. L. Patterson	1952—E. Victor Seixas, Jr.-Mervyn Rose
1920—William Johnston-C. J. Griffin	1953—Mervyn Rose-Rex Hartwig
1921-22—W. T. Tilden II-Vincent Richards	1954—E. Victor Seixas, Jr.-Tony Trabert
1923—W. T. Tilden II-B. I. C. Norton	1955—Kosei Kamo-Atsushi Miyagi
1924—H. O. Kinsey-R. G. Kinsey	1956—Lewis Hoad-Ken Rosewall
1925-26—Vincent Richards-R. N. Williams II	1957—Ashley Cooper-Neale Fraser
1927—W. T. Tilden II-F. T. Hunter	

* Patriotic tournament in 1917.
† Challenge round abandoned in 1918.

Women's Singles

1887—Ellen F. Hansell	1900—Myrtle McAteer	1912-14—Mary K. Browne	1936—Alice Marble
1888-89—Bertha L. Townsend	1901—Elisabeth H. Moore	1915-18—Molla Bjurstedt††	1937—Anita Lizana
1890—Ellen C. Roosevelt	1902—Marion Jones	1919—Mrs. G. W. Wightman	1938-40—Alice Marble
1891-92—Mabel E. Cahill	1903—Elisabeth H. Moore	1920-22—Mrs. Molla B. Mallory	1941—Mrs. Sarah P. Cooke
1893—Aline M. Terry	1904—May G. Sutton	1923-25—Helen N. Wills	1946—Pauline M. Betz
1894—Helen R. Helwig	1905—Elisabeth H. Moore	1926—Mrs. Molla B. Mallory	1947—A. Louise Brough
1895—Juliette P. Atkinson	1906—Helen Homans	1927-29—Helen N. Wills	1948-50—Mrs. M. O. du Pont
1896—Elisabeth H. Moore	1907—Evelyn Sears	1930—Betty Nuthall	1951-53—Maureen Connolly
1897-98—Juliette P. Atkinson	1908—Mrs. Maud Bargar-Wallach	1931—Mrs. Helen W. Moody	1954-55—Doris Hart
1899—Marion Jones	1909-11—Hazel V. Hotchkiss	1932-35—Helen Jacobs	1956—Shirley Fry
			1957—Althea Gibson

* Louise Hammond won patriotic tournament in 1917. † Challenge round abandoned in 1918.

Women's Doubles

1890—Ellen C. Roosevelt-Grace W. Roosevelt	1901—J. P. Atkinson-Myrtle McAteer
1891—Mabel E. Cahill-Mrs. W. F. Morgan	1902—J. P. Atkinson-Marion Jones
1892—Mabel E. Cahill-A. M. McKinley	1903—E. H. Moore-Carrie B. Neely
1893—Aline M. Terry-Hattie Butler	1904—May G. Sutton-Miriam Hall
1894-95—Helen R. Helwig-J. P. Atkinson	1905—Helen Homans-Carrie B. Neely
1896—E. H. Moore-J. P. Atkinson	1906—Mrs. L. S. Coe-Mrs. D. S. Platt
1897-98—J. P. Atkinson-Kathleen Atkinson	1907—Marie Weimer-Carrie B. Neely
1899—Jane W. Craven-Myrtle McAteer	1908—Evelyn Sears-Margaret Curtis
1900—Edith Parker-Hallie Champlin	1909-10—Hazel V. Hotchkiss-Edith E. Rotch

1911—Hazel V. Hotchkiss-Eleonora Sears
 1912—Dorothy Green-Mary K. Browne
 1913-14—Mary K. Browne-Mrs. R. H. Williams
 1915—Mrs. G. W. Wightman-Eleonora Sears
 1916-17—Molla Bjurstedt-Eleonora Sears
 1918-20—Marion Zinderstein-Eleanor Goes
 1921—Mary K. Browne-Mrs. R. H. Williams
 1922—Mrs. J. B. Jessup-Helen N. Wills
 1923—Kathleen McKane-Mrs. B. C. Covell
 1924—Mrs. G. W. Wightman-Helen N. Wills
 1925—Mary K. Browne-Helen N. Wills
 1926—Elizabeth Ryan-Eleanor Goss
 1927—Mrs. L. A. Godfree-Ermytrude Harvey
 1928—Mrs. G. W. Wightman-Helen N. Wills

1929—Mrs. Phoebe Watson-Mrs. L. R. C. Michell
 1930—Betty Nuthall-Sarah Palfrey
 1931—Betty Nuthall-Mrs. E. B. Wittingstall
 1932—Helen Jacobs-Sarah Palfrey
 1933—Betty Nuthall-Freda James
 1934—Helen Jacobs-Sarah Palfrey
 1935—Helen Jacobs-Mrs. S. P. Fabyan
 1936—Mrs. M. G. Van Ryn-Carolin Babcock
 1937-40—Mrs. S. P. Fabyan-Alice Marble
 1941—Mrs. S. P. Cooke-Margaret Osborne
 1942-47—A. Louise Brough-Margaret Osborne
 1948-50—A. Louise Brough-Mrs. Margaret O. du Pont
 1951-54—Doris Hart-Shirley Fry
 1955-57—A. Louise Brough-Mrs. Margaret O. du Pont

BRITISH (WIMBLEDON) CHAMPIONS

Men's Singles

1877—S. W. Gore	1897-1900—R. F. Doherty	1925—R. Lacoste	1946—Yvon Petra
1878—P. F. Hadow	1901—A. W. Gore	1926—J. Borotra	1947—John A. Kramer
1879-80—J. T. Hartley	1902-06—H. L. Doherty	1927—H. Cochet	1948—R. Falkenburg
1881-86—W. Renshaw	1907—N. E. Brookes	1928—R. Lacoste	1949—F. R. Schroeder, Jr.
1887—H. F. Lawford	1908-09—A. W. Gore	1929—H. Cochet	1950—Budge Patty
1888—E. Renshaw	1910-13—A. F. Wilding	1930—W. T. Tilden II	1951—Richard Savitt
1889—W. Renshaw	1914—N. E. Brookes	1931—S. B. Wood	1952—Frank Sedgman
1890—W. J. Hamilton	1919—G. L. Patterson	1932—H. E. Vines, Jr.	1953—E. Victor Seixas, Jr.
1891-92—W. Baddeley	1920-21—W. T. Tilden II	1933—J. H. Crawford	1954—Jaroslav Drobný
1893-94—J. Pim	1922—G. L. Patterson	1934-36—F. J. Perry	1955—Tony Trabert
1895—W. Baddeley	1923—W. M. Johnston	1937-38—J. D. Budge	1956-57—Lewis Hoad
1896—H. S. Mahony	1924—J. Borotra	1939—R. L. Riggs	

Men's Doubles

1879—L. R. Erskine-H. F. Lawford	1908—A. F. Wilding-M. J. G. Ritchie	1932-33—J. Borotra-J. Brugnon
1880-81—W. Renshaw-E. Renshaw	1909—A. W. Gore-H. R. Barrett	1934—G. M. Lott-L. R. Stofen
1882—J. T. Hartley-R. T. Richardson	1910—A. F. Wilding-M. J. G. Ritchie	1935—J. H. Crawford-A. K. Quist
1883—C. W. Grinstead-C. E. Welldon	1911—M. Decugis-A. H. Gobert	1936—C. R. D. Tuckey-G. P. Hughes
1884-86—W. Renshaw-E. Renshaw	1912-13—H. R. Barrett-C. P. Dixon	1937-38—J. D. Budge-C. Gene Mako
1887—P. Bowes-Lyon-H. W. W. Wilberforce	1914—N. E. Brookes-A. F. Wilding	1939—R. L. Riggs-E. T. Cooke
1888-89—W. Renshaw-E. Renshaw	1919—R. V. Thomas-P. O'Hara Wood	1946—J. A. Kramer-Tom Brown
1890—J. L. Pim-F. O. Stoker	1920—R. N. Williams II-C. S. Garland	1947—J. A. Kramer-R. Falkenburg
1891—W. Baddeley-H. Baddeley	1921—R. Lycett-M. Woosnam	1948—J. Bromwich-F. Sedgman
1892—H. S. Barrow-E. W. Lewis	1922—R. Lycett-J. O. Anderson	1949—F. Parker-R. Gonzales
1893—J. L. Pim-F. O. Stoker	1923—R. Lycett-L. A. Godfree	1950—J. Bromwich-A. Quist
1894-96—W. Baddeley-H. Baddeley	1924—V. Richards-F. T. Hunter	1951-52—F. Sedgman-K. McGregor
1897-1901—R. F. Doherty-H. L. Doherty	1925—J. Borotra-R. Lacoste	1953—K. Rosewall-L. Hoad
1902—S. H. Smith-F. L. Riseley	1926—H. Cochet-J. Brugnon	1954—R. Hartwig-M. Rose
1903-05—R. F. Doherty-H. L. Doherty	1927—W. T. Tilden II-F. T. Hunter	1955—R. Hartwig-L. Hoad
1906—S. H. Smith-F. L. Riseley	1928—H. Cochet-J. Brugnon	1956—L. Hoad-K. Rosewall
1907—N. E. Brookes-A. F. Wilding	1929-30—W. Allison-J. Van Ryn	1957—G. Mulloy-B. Patty
	1931—G. M. Lott-J. Van Ryn	

Women's Singles

1884-85—M. Watson	1901—Mrs. Sterry	1919-23—Mlle. Lenglen	1937—D. E. Round
1886—Miss Bingley	1902—M. E. Robb	1924—K. McKane	1938—Mrs. F. S. Moody
1887-88—L. Dod	1903-04—D. K. Douglas	1925—Mlle. Lenglen	1939—Alice Marble
1889—Mrs. Hillyard	1905—M. Sutton	1926—Mrs. Godfree	1946—Pauline M. Betz
1890—L. Rice	1906—D. K. Douglas	1927-29—Helen Wills	1947—Margaret Osborne
1891-93—L. Dod	1907—M. Sutton	1930—Mrs. F. S. Moody	1948-50—A. Louise Brough
1894—Mrs. Hillyard	1908—Mrs. Sterry	1931—Frl. C. Ausen	1951—Doris Hart
1895-96—C. Cooper	1909-D. Boothby	1932-33—Mrs. F. S. Moody	1952-54—M. Connolly
1897—Mrs. Hillyard	1910-11—Mrs. L. Chambers	1934—D. E. Round	1955—A. Louise Brough
1898—C. Cooper	1912—Mrs. Larcombe	1935—Mrs. F. S. Moody	1956—Shirley Fry
1899-1900—Mrs. Hillyard	1913-14—Mrs. L. Chambers	1936—Helen Jacobs	1957—Althea Gibson

Women's Doubles

1913—Mrs. McNair-Miss Boothby	1930—E. Ryan-Mrs. F. S. Moody	1947—Doris Hart-Mrs. Pat Todd
1914—E. Ryan-A. M. Morton	1931—Mrs. Shepherd-Barron-Mrs. Muddford King	1948-50—A. L. Brough-Mrs. M. O. du Pont
1919-23—Mlle. Lenglen-E. Ryan	1932—Mlle. D. Metaxa-Mlle. J. Sigart	1951-53—Doris Hart-Shirley Fry
1924—Mrs. Wightman-Helen Wills	1933-34—E. Ryan-Mme. Mathieu	1954—A. L. Brough-Mrs. M. O. du Pont
1925—Mlle. Lenglen-E. Ryan	1935-36—K. E. Stammers-F. James	1955—Angela Mortimer-Ann Shilcock
1926—E. Ryan-M. K. Browne	1937—Mme. S. Mathieu-A. M. Yorka	1956—Althea Gibson-Angela Buxton
1927—E. Ryan-Helen Wills	1938-39—A. Marble-Mrs. S. P. Fabyan	1957—Althea Gibson-Darlene Hard
1928—Mrs. H. Watson-P. Saunders	1946—A. L. Brough-M. Osborne	
1929—Mrs. H. Watson-Mrs. Michell		

THE OLYMPIC GAMES

(W)—Site of Winter Games. (S)—Site of Summer Games.

1896—Athens	1920—Antwerp	1932—Los Angeles (S)	1952—Oslo (W)
1900—Paris	1924—Chamonix (W)	1936—Garmisch-Parten-	1952—Helsinki (S)
1904—St. Louis	1924—Paris (S)	kirchen (W)	1956—Cortina d'Am-
1906—Athens	1928—St. Moritz (W)	1936—Berlin (S)	pezzo, Italy (W)
1908—London	1928—Amsterdam (S)	1948—St. Moritz (W)	1956—Melbourne (S)
1912—Stockholm	1932—Lake Placid (W)	1948—London (S)	

THE first Olympic Games of which there is record occurred in 776 B.C. and consisted of one event, a great foot race of about 200 yards held on a plain by the River Alpheus (now the Ruphia) just outside the little town of Olympia in Greece. It was from that date that the Greeks began to keep their calendar by "Olympiads," the four-year spans between the celebrations of the famous games. There was a religious as well as an athletic significance to the ancient games and the shrines, temples and sacred fires within the Olympic enclosure were the scenes of worship all through the year whereas the Olympic Games, at the height of their popularity, never lasted more than five days and were held only once every four years.

The competition was entirely amateur at the start and the only prizes were laurel wreaths. Only free Greek citizens were allowed to compete and they had to undergo a strict training course that lasted ten months. But civic rivalry led to trickery and professionalism and the

games became degraded after some centuries. When Rome conquered Greece, the Roman emperors turned the Olympic Games from patriotic, religious and athletic festivals into carnivals and circuses. They dragged on malodorously until they were finally halted by decree of Emperor Theodosius I of Rome in A.D. 394.

The modern Olympic Games, which started in Athens in 1896, are the result of the devotion of a French educator, Baron Pierre de Coubertin, to the idea that, since boys and athletics have gone together down the ages, education and athletics might well go hand-in-hand toward a better international understanding. He planned a revival of the ancient Olympic Games on a world-wide basis and succeeded in getting nine nations to send athletes to the first of the modern games in 1896. Since then more than 35,000 athletes representing about 60 nations have competed in the games.

Interrupted for the second time by war, the modern Olympic Games were resumed at London in 1948.

OLYMPIC GAMES CHAMPIONS, 1896-1956

TRACK AND FIELD—MEN

60-Meter Run

1900	A. E. Kraenzlein, United States.....	7s.
1904	Archie Hahn, United States.....	7s.

100-Meter Run

1896	T. E. Burke, United States.....	12s.
1900	F. W. Jarvis, United States.....	10.8s.
1904	Archie Hahn, United States.....	11s.
1906	Archie Hahn, United States.....	11.2s.
1908	R. E. Walker, South Africa.....	10.8s.
1912	R. C. Craig, United States.....	10.8s.
1920	C. W. Paddock, United States.....	10.8s.
1924	H. M. Abrahams, Great Britain.....	10.6s.
1928	Percy Williams, Canada.....	10.8s.
1932	Eddie Tolan, United States.....	10.3s.
1936	Jesse Owens, United States.....	10.3s.*
1948	Harrison Dillard, United States.....	10.3s.
1952	Lindy Remigino, United States.....	10.4s.
1956	Bobby Morrow, United States.....	10.5s.

* Wind assisted.

200-Meter Run

1900	J. W. B. Tewksbury, United States.....	22.2s.
1904	Archie Hahn, United States.....	21.6s.
1908	Robert Kerr, Canada.....	22.4s.

1912	R. C. Craig, United States.....	21.7s.
1920	Allan Woodring, United States.....	22s.
1924	J. V. Scholz, United States.....	21.6s.
1928	Percy Williams, Canada.....	21.8s.
1932	Eddie Tolan, United States.....	21.2s.
1936	Jesse Owens, United States.....	20.7s.
1948	Melvin E. Patton, United States.....	21.1s.
1952	Andrew Stanfield, United States.....	20.7s.
1956	Bobby Morrow, United States.....	20.6s.

400-Meter Run

1896	T. E. Burke, United States.....	54.2.
1900	M. W. Long, United States.....	49.4.
1904	H. L. Hillman, United States.....	49.2.
1906	Paul Pilgrim, United States.....	53.2.
1908	W. Halswelle, Great Britain (walkover).....	50s.
1912	C. D. Reidpath, United States.....	48.2s.
1920	B. G. D. Rudd, South Africa.....	49.6s.
1924	E. H. Liddell, Great Britain.....	47.6s.
1928	Ray Barbuti, United States.....	47.8s.
1932	William Carr, United States.....	46.2s.
1936	Archie Williams, United States.....	46.5s.
1948	Arthur Wint, Jamaica, B.W.I.....	46.2s.
1952	George Rhoden, Jamaica, B. W. I.....	45.9s.
1956	Charles Jenkins, United States.....	46.7s.

800-Meter Run

1896	E. H. Flack, Great Britain	2m.11s.
1900	A. E. Tysoe, Great Britain	2m.1.4s.
1904	J. D. Lightbody, United States	1m.56s.
1906	Paul Pilgrim, United States	2m.1.2s.
1908	M. W. Sheppard, United States	1m.52.8s.
1912	J. E. Meredith, United States	1m.51.9s.
1920	A. G. Hill, Great Britain	1m.53.4s.
1924	D. G. A. Lowe, Great Britain	1m.52.4s.
1928	D. G. A. Lowe, Great Britain	1m.51.8s.
1932	Thomas Hampson, Great Britain	1m.49.8s.
1936	John Woodruff, United States	1m.52.9s.
1948	Malvin Whitfield, United States	1m.49.2s.
1952	Malvin Whitfield, United States	1m.49.2s.
1956	Tom Courtney, United States	1m.47.7s.

1,500-Meter Run

1896	E. H. Flack, Great Britain	4m.33.2s.
1900	Charles Bennett, Great Britain	4m.6s.
1904	J. D. Lightbody, United States	4m.5.4s.
1906	J. D. Lightbody, United States	4m.12s.
1908	M. W. Sheppard, United States	4m.3.4s.
1912	A. N. S. Jackson, Great Britain	3m.56.8s.
1920	A. G. Hill, Great Britain	4m.1.8s.
1924	Paavo Nurmi, Finland	3m.53.6s.
1928	H. E. Larva, Finland	3m.53.2s.
1932	Luigi Beccali, Italy	3m.51.2s.
1936	J. E. Lovelock, New Zealand	3m.47.8s.
1948	Henri Eriksson, Sweden	3m.49.8s.
1952	Joseph Barthel, Luxemburg	3m.45.2s.
1956	Ron Delany, Ireland	3m.41.2s.

5,000-Meter Run

1912	Hannes Kolehmainen, Finland	14m.36.6s.
1920	Joseph Guillemot, France	14m.55.6s.
1924	Paavo Nurmi, Finland	14m.31.2s.
1928	Willie Ritola, Finland	14m.38s.
1932	Lauri Lehtinen, Finland	14m.30s.
1936	Gunnar Hockert, Finland	14m.22.2s.
1948	Gaston Reiff, Belgium	14m.17.6s.
1952	Emil Zatopek, Czechoslovakia	14m.6.6s.
1956	Vladimir Kuts, U.S.S.R.	13m.39.6s.

5-Mile Run

1906	H. Hawtrey, Great Britain	26m.26.2s.
1908	E. R. Voigt, Great Britain	25m.11.2s.

10,000-Meter Run

1912	Hannes Kolehmainen, Finland	31m.20.8s.
1920	Paavo Nurmi, Finland	31m.45.8s.
1924	Willie Ritola, Finland	30m.23.2s.
1928	Paavo Nurmi, Finland	30m.18.8s.
1932	Janusz Kusocinski, Poland	30m.11.4s.
1936	Ilmari Salminen, Finland	30m.15.4s.
1948	Emil Zatopek, Czechoslovakia	29m.59.6s.
1952	Emil Zatopek, Czechoslovakia	29m.17s.
1956	Vladimir Kuts, U.S.S.R.	28m.45.6s.

Marathon

1896	Spiridon Loues, Greece	2h.55m.20s.
1900	Michel Teato, France	2h.59m.
1904	T. J. Hicks, United States	3h.28m.53s.
1906	W. J. Sherring, Canada	2h.51m.23.6s.
1908	John J. Hayes, United States	2h.55m.18.4s.
1912	K. K. McArthur, South Africa	2h.36m.54.8s.
1920	Hannes Kolehmainen, Finland	2h.32m.35.8s.
1924	A. O. Stenroos, Finland	2h.41m.22.6s.
1928	A. B. El Ouafi, France	2h.32m.57s.
1932	Juan Zabala, Argentina	2h.31m.36s.
1936	Kitei Son, Japan	2h.29m.19.2s.
1948	Delfo Cabrera, Argentina	2h.34m.51.6s.
1952	Emil Zatopek, Czechoslovakia	2h.23m.3.2s.
1956	Alain Mimoun, France	2h.25m.

110-Meter Hurdles

1896	Thomas Curtis, United States	17.6s.
1900	A. E. Kraenzlein, United States	15.4s.
1904	F. W. Schule, United States	16s.
1906	R. G. Leavitt, United States	16.2s.
1908	Forrest Smithson, United States	15s.
1912	F. W. Kelly, United States	15.1s.
1920	E. J. Thomson, Canada	14.8s.
1924	D. C. Kinsey, United States	15s.
1928	Sydney Atkinson, South Africa	14.8s.
1932	George Saling, United States	14.6s.
1936	Forrest Towns, United States	14.2s.
1948	William Porter, United States	13.9s.
1952	Harrison Dillard, United States	13.7s.
1956	Lee Calhoun, United States	13.5s.

200-Meter Hurdles

1900	A. E. Kraenzlein, United States	25.4s.
1904	H. L. Hillman, United States	24.6s.

400-Meter Hurdles

1900	J. W. B. Tewksbury, United States	57.6s.
1904	H. L. Hillman, United States	53s.
1908	C. J. Bacon, United States	55s.
1920	F. F. Loomis, United States	54s.
1924	F. M. Taylor, United States	52.6s.
1928	Lord David Burghley, Great Britain	53.4s.
1932	Robert Tisdall, Ireland	51.8s.*
1936	Glenn Hardin, United States	52.4s.
1948	Roy Cochran, United States	51.1s.
1952	Charles Moore, United States	50.8s.
1956	Glenn Davis, United States	50.1s.

* Record not allowed.

2,500-Meter Steeplechase

1900	G. W. Orton, United States	7m.34s.
1904	J. D. Lightbody, United States	7m.39.6s.

3,000-Meter Steeplechase

1920	Percy Hodge, Great Britain	10m.2.4s.
1924	Willie Ritola, Finland	9m.33.6s.
1928	T. A. Loukola, Finland	9m.21.8s.
1932	Volmari Iso-Hollo, Finland	10m.33.4s.*
1936	Volmari Iso-Hollo, Finland	9m.3.8s.
1948	Thure Sjostrand, Sweden	9m.4.6s.
1952	Horace Ashenfelter, United States	8m.45.4s.
1956	Chris Brasher, Great Britain	8m.41.2s.

* About 3,450 meters—extra lap by error.

3,200-Meter Steeplechase

1908	A. Russell, Great Britain	10m.47.8s.
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4,000-Meter Steeplechase

1900	John Rimmer, Great Britain	12m.58.4s.
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3,000-Meter Team

1912	United States	9 pts.
1920	United States	10 pts.
1924	Finland	8 pts.

3-Mile Team

1908	Great Britain	6 pts.
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8,000-Meter X-Country

1912	Hannes Kolehmainen, Finland	45m.11.6s.
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8,000-Meter X-Country Team

1912	Sweden	
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10,000-Meter X-Country

1920	Paavo Nurmi, Finland	27m.15s.
1924	Paavo Nurmi, Finland	32m.54.8s.

10,000-Meter X-Country Team

1912	Sweden	10 pts.
1920	Finland	10 pts.
1924	Finland	11 pts.

1,500-Meter Walk

1906	George V. Bonhag, United States.....	7m.12.6s.
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3,000-Meter Walk

1920	Ugo Frigerio, Italy.....	13m.14.2s.
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3,500-Meter Walk

1908	G. E. Larner, Great Britain.....	14m.55s.
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10,000-Meter Walk

1912	G. H. Goulding, Canada.....	46m.28.4s
1920	Ugo Frigerio, Italy.....	48m.6.2s.
1924	Ugo Frigerio, Italy.....	47m.49s.
1948	John Mikaelsson, Sweden.....	45m.13.2s.
1952	John Mikaelsson, Sweden.....	45m.2.8s.

10-Mile Walk

1908	G. E. Larner, Great Britain.....	1h.15m.57.4s.
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20,000-Meter Walk

1956	Leonid Spirin, Russia.....	1h.31m.27s.
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50,000-Meter Walk

1932	Thomas W. Green, Great Britain.....	4h.50m.10s.
1936	Harold Whitlock, Great Britain.....	4h.30m.41.4s.
1948	John Ljunggren, Sweden.....	4h.41m.52s.
1952	Giuseppe Bordoni, Italy.....	4h.28m.7.8s.
1956	Norman Read, New Zealand.....	4h.30m.42.8s.

400-Meter Relay

1912	Great Britain.....	42.4s.
1920	United States.....	42.2s.
1924	United States.....	41s.
1928	United States.....	41s.
1932	United States.....	40s.
1936	United States.....	39.8s.
1948	United States.....	40.6s.
1952	United States.....	40.1s.
1956	United States.....	39.5s.

1,600-Meter Relay

1908	United States.....	3m.27.2s.
1912	United States.....	3m.16.6s.
1920	Great Britain.....	3m.22.2s.
1924	United States.....	3m.16s.
1928	United States.....	3m.14.2s.
1932	United States.....	3m.8.2s.
1936	Great Britain.....	3m.9s.
1948	United States.....	3m.10.4s.
1952	Jamaica, B. W. I.....	3m.3.9s.
1956	United States.....	3m.4.8s.

Pole Vault

1896	W. W. Hoyt, United States.....	10 ft. 9½ in.
1900	I. K. Baxter, United States.....	10 ft. 9.9 in.
1904	C. E. Dvorak, United States.....	11 ft. 6 in.
1906	Gouder, France.....	11 ft. 6 in.
1908	A. C. Gilbert, United States, and Edward Cook, United States (tie).....	12 ft. 2 in.
1912	H. J. Babcock, United States.....	12 ft. 11½ in.
1920	F. K. Foss, United States.....	13 ft. 5 in.
1924	L. S. Barnes, United States.....	12 ft. 11½ in.
1928	Sabin W. Carr, United States.....	13 ft. 9½ in.
1932	William Miller, United States.....	14 ft. 1½ in.
1936	Earle Meadows, United States.....	14 ft. 3¼ in.
1948	Guinn Smith, United States.....	14 ft. 1¼ in.
1952	Robert Richards, United States.....	14 ft. 11.14 in.
1956	Robert Richards, United States.....	14 ft. 11½ in.

Standing High Jump

1900	R. C. Ewry, United States.....	5 ft. 5 in.
1904	R. C. Ewry, United States.....	4 ft. 11 in.
1906	R. C. Ewry, United States.....	5 ft. 1½ in.

1908	R. C. Ewry, United States.....	5 ft. 2 in.
1912	Platt Adams, United States.....	5 ft. 4½ in.

Running High Jump

1896	E. H. Clark, United States.....	5 ft. 11¼ in.
1900	I. K. Baxter, United States.....	6 ft. 2½ in.
1904	S. S. Jones, United States.....	5 ft. 11 in.
1906	Con Leahy, Ireland.....	5 ft. 9½ in.
1908	H. F. Porter, United States.....	6 ft. 3 in.
1912	A. W. Richards, United States.....	6 ft. 4 in.
1920	R. W. Landon, United States.....	6 ft. 4¼ in.
1924	H. M. Osborn, United States.....	6 ft. 5½ in.
1928	Robert W. King, United States.....	6 ft. 4½ in.
1932	Duncan McNaughton, Canada.....	6 ft. 5½ in.
1936	Cornelius Johnson, United States.....	6 ft. 7½ in.
1948	John Winter, Australia.....	6 ft. 6 in.
1952	Walter Davis, United States.....	6 ft. 8.32 in.
1956	Charles Dumas, United States.....	6 ft. 11¼ in.

Standing Broad Jump

1900	R. C. Ewry, United States.....	10 ft. 6¾ in.
1904	R. C. Ewry, United States.....	11 ft. 4½ in.
1906	R. C. Ewry, United States.....	10 ft. 10 in.
1908	R. C. Ewry, United States.....	10 ft. 11¼ in.
1912	Constantin Tsicilitiras, Greece.....	11 ft. ¾ in.

Running Broad Jump

1896	E. H. Clark, United States.....	20 ft. 9¾ in.
1900	A. E. Kraenzlein, United States.....	23 ft. 6½ in.
1904	Myer Prinstein, United States.....	24 ft. 1 in.
1906	Myer Prinstein, United States.....	23 ft. 7½ in.
1908	Frank Irons, United States.....	24 ft. 6½ in.
1912	A. L. Gutterson, United States.....	24 ft. 11¼ in.
1920	Wm. Pettersson, Sweden.....	23 ft. 5½ in.
1924	DeHart Hubbard, United States.....	24 ft. 5½ in.
1928	Edward B. Hamm, United States.....	25 ft. 4¼ in.
1932	Edward Gordon, United States.....	25 ft. ¾ in.
1936	Jesse Owens, United States.....	26 ft. 5½ in.
1948	Willie Steele, United States.....	25 ft. 8 in.
1952	Jerome Biffe, United States.....	24 ft. 10.03 in.
1956	Gregory Bell, United States.....	25 ft. 8¾ in.

Standing Hop, Step, and Jump

1900	R. C. Ewry, United States.....	34 ft. 8½ in.
1904	R. C. Ewry, United States.....	34 ft. 7¼ in.

Running Hop, Step, and Jump

1896	J. B. Connolly, United States.....	45 ft.
1900	Myer Prinstein, United States.....	47 ft. 4¼ in.
1904	Myer Prinstein, United States.....	47 ft.
1906	P. O'Connor, Ireland.....	46 ft. 2 in.
1908	T. J. Ahearne, Great Britain.....	48 ft. 11¼ in.
1912	Gustaf Lindblom, Sweden.....	48 ft. 5½ in.
1920	Vilho Tuulos, Finland.....	47 ft. 6½ in.
1924	A. W. Winter, Australia.....	50 ft. 11½ in.
1928	Mikio Oda, Japan.....	49 ft. 10¾ in.
1932	Chuhei Nambu, Japan.....	51 ft. 7 in.
1936	Naoto Tajima, Japan.....	52 ft. 5½ in.
1948	Arne Ahman, Sweden.....	50 ft. 6¼ in.
1952	Adhemar da Silva, Brazil.....	53 ft. 2.59 in.
1956	Adhemar da Silva, Brazil.....	53 ft. 7½ in.

16-Lb. Shot-put

1896	Robert Garrett, United States.....	36 ft. 2 in.
1900	Richard Sheldon, United States.....	46 ft. 3½ in.
1904	Ralph Rose, United States.....	48 ft. 7 in.
1906	M. J. Sheridan, United States.....	40 ft. 4½ in.
1908	Ralph Rose, United States.....	46 ft. 7½ in.
1912	P. J. McDonald, United States.....	50 ft. 4 in.
1920	Ville Purhola, Finland.....	48 ft. 7½ in.
1924	Clarence Houser, United States.....	49 ft. 2½ in.
1928	John Kuck, United States.....	52 ft. 1¼ in.
1932	Leo Sexton, United States.....	52 ft. 6¼ in.
1936	Hans Woellke, Germany.....	53 ft. 1¼ in.
1948	Wilbur Thompson, United States.....	56 ft. 2 in.
1952	Parry O'Brien, United States.....	57 ft. 1.43 in.
1956	Parry O'Brien, United States.....	60 ft. 11 in.

16-Lb. Shot-put (Both Hands)

1912	Ralph Rose, United States.....	90 ft. 5½ in.
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16-Lb. Hammer Throw

1900	J. J. Flanagan, United States.....	167 ft. 4 in.
1904	J. J. Flanagan, United States.....	168 ft. 1 in.
1908	J. J. Flanagan, United States.....	170 ft. 4¼ in.
1912	M. J. McGrath, United States.....	177 ft. 7 in.
1920	P. J. Ryan, United States.....	173 ft. 5½ in.
1924	F. D. Tootell, United States.....	174 ft. 10¼ in.
1928	Patrick O'Callaghan, Ireland.....	168 ft. 7¼ in.
1932	Patrick O'Callaghan, Ireland.....	176 ft. 11¼ in.
1936	Karl Hein, Germany.....	185 ft. 4 in.
1948	Imre Nemeth, Hungary.....	183 ft. 11½ in.
1952	Jozsef Csermak, Hungary.....	197 ft. 11.67 in.
1956	Harold Connolly, United States.....	207 ft. 2¼ in.

56-Lb. Weight Throw

1904	Etienne Desmarteau, Canada.....	34 ft. 4 in.
1920	P. J. McDonald, United States.....	36 ft. 11½ in.

Discus Throw

1896	Robert Garrett, United States.....	95 ft. 7½ in.
1900	Rudolf Bauer, Hungary.....	118 ft. 2.9 in.
1904	M. J. Sheridan, United States.....	128 ft. 10½ in.
1906	M. J. Sheridan, United States.....	136 ft. ½ in.
1908	M. J. Sheridan, United States.....	134 ft. 2 in.
1912	A. R. Taipale, Finland.....	148 ft. 3.9 in.
1920	Elmer Niklander, Finland.....	146 ft. 7 in.
1924	Clarence Houser, United States.....	151 ft. 5¼ in.
1928	Clarence Houser, United States.....	155 ft. 2¼ in.
1932	John Anderson, United States.....	162 ft. 4¼ in.
1936	Ken Carpenter, United States.....	165 ft. 7¼ in.
1948	Adolfo Consolini, Italy.....	173 ft. 2 in.
1952	Simeon Iness, United States.....	180 ft. 6.85 in.
1956	Al Oerter, United States.....	184 ft. 10½ in.

Discus Throw—Greek Style

1906	Werner Jaervinen, Finland.....	115 ft. 4 in.
1908	M. J. Sheridan, United States.....	124 ft. 8 in.

Discus Throw (Right and Left Hand)

1912	A. R. Taipale, Finland.....	271 ft. 10¼ in.
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Javelin Throw

1906	Eric Lemming, Sweden.....	175 ft. 6 in.
1908	Eric Lemming, Sweden.....	179 ft. 10½ in.
1912	Eric Lemming, Sweden.....	198 ft. 11¼ in.
1920	Jonni Myyra, Finland.....	215 ft. 9¼ in.
1924	Jonni Myyra, Finland.....	206 ft. 6¼ in.
1928	E. H. Lundquist, Sweden.....	218 ft. 6¼ in.
1932	Matti Jarvinen, Finland.....	238 ft. 7 in.
1936	Gerhard Stoock, Germany.....	235 ft. 8½ in.
1948	Kaj Rautavaara, Finland.....	228 ft. 10½ in.
1952	Cy Young, United States.....	242 ft. 0.79 in.
1956	Egil Danielsen, Norway.....	281 ft. 2¼ in.

Javelin Throw—Free Style

1908	Eric Lemming, Sweden.....	178 ft. 7½ in.
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Javelin Throw (Both Hands)

1912	J. J. Saaristo, Finland.....	358 ft. 11½ in.
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Pentathlon

1906	H. Mellander, Sweden.....	24 pts.
1912	F. R. Bie, Norway.....	21 pts.
1920	E. R. Lehtonen, Finland.....	14 pts.
1924	E. R. Lehtonen, Finland.....	16 pts.

Decathlon

1912	Hugo Wieslander, Sweden.....	7,724.495 pts.
1920	Helge Lovland, Norway.....	6,804.35 pts.
1924	H. M. Osborn, United States.....	7,710.775 pts.
1928	Paavo Yrjola, Finland.....	8,053.29 pts.

1932	James Bausch, United States.....	8,462.23 pts.
1936	Glenn Morris, United States.....	7,900 pts.
1948	Robert B. Mathias, United States.....	7,139 pts.
1952	Robert B. Mathias, United States.....	7,887 pts.
1956	Milton Campbell, United States.....	7,937 pts.

(Old point system used from 1912 to 1932; new point system used 1936, 1948; revised point system used 1952, 1956.)

TRACK AND FIELD—WOMEN**100-Meter Run**

1928	Elizabeth Robinson, United States.....	12.2s.
1932	Stanislawa Walasiewicz, Poland.....	11.9s.
1936	Helen Stephens, United States.....	11.5s.
1948	Fanny Blankers-Koen, Holland.....	11.9s.
1952	Marjorie Jackson, Australia.....	11.5s.
1956	Betty Cuthbert, Australia.....	11.5s.

200-Meter Run

1948	Fanny Blankers-Koen, Holland.....	24.4s.
1952	Marjorie Jackson, Australia.....	23.7s.
1956	Betty Cuthbert, Australia.....	23.4s.

800-Meter Run

1928	Lina Radke, Germany.....	2m.16.8s
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80-Meter Hurdles

1932	Mildred Didrikson, United States.....	11.7s.
1936	Trebisodna Valla, Italy.....	11.7s.
1948	Fanny Blankers-Koen, Holland.....	11.2s.
1952	Shirley S. de la Hunty, Australia.....	10.9s.
1956	Shirley S. de la Hunty, Australia.....	10.7s.

400-Meter Relay

1928	Canada.....	48.4s.
1932	United States.....	47s.
1936	United States.....	46.9s.
1948	Holland.....	47.5s.
1952	United States.....	45.9s.
1956	Australia.....	44.5s.

Running High Jump

1928	Ethel Catherwood, Canada.....	5 ft. 3 in.
1932	Jean Shiley, United States.....	5 ft. 5¼ in.
1936	Ibolya Csak, Hungary.....	5 ft. 3 in.
1948	Alice Coachman, United States.....	5 ft. 6¼ in.
1952	Ester Brand, South Africa.....	5 ft. 5.75 in.
1956	Mildred McDaniel, United States.....	5 ft. 9¼ in.

Running Broad Jump

1948	V. O. Gyarmati, Hungary.....	18 ft. 8¼ in.
1952	Yvette Williams, New Zealand.....	20 ft. 5.66 in.
1956	Elzbieta Krzesinska, Poland.....	20 ft. 10 in.

Discus Throw

1928	Helena Konopacka, Poland.....	129 ft. 11¼ in.
1932	Lillian Copeland, United States.....	133 ft. 2 in.
1936	Gisela Mauermayer, Germany.....	156 ft. 3¾ in.
1948	Micheline Ostermeyer, France.....	137 ft. 6½ in.
1952	Nina Romaschkova, U.S.S.R.....	168 ft. 8.5 in.
1956	Olga Fikotova, Czechoslovakia.....	176 ft. 1½ in.

Javelin Throw

1932	Mildred Didrikson, United States.....	143 ft. 4 in.
1936	Tilly Fleischer, Germany.....	148 ft. 2¼ in.
1948	Herma Bauma, Austria.....	149 ft. 6 in.
1952	Dana Zatopek, Czechoslovakia.....	165 ft. 7.05 in.
1956	Inessa Janzeme, U.S.S.R.....	176 ft. 8½ in.

Shot-put

1948	Micheline Ostermeyer, France.....	45 ft. 1½ in.
1952	Galina Zybina, U.S.S.R.....	50 ft. 2.58 in.
1956	Tamara Tishkevich, U.S.S.R.....	54 ft. 5 in.

SWIMMING—MEN

50 Yards

1904	Zoltan de Halomay, Hungary	28s.
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100 Meters

1896	Alfred Hajos, Hungary	1m.22.2s.
1904	Zoltan de Halomay, Hungary	1m.2.8s.*
1906	C. M. Daniels, United States	1m.13s.
1908	C. M. Daniels, United States	1m.5.6s.
1912	Duke P. Kahanamoku, United States	1m.3.4s.
1920	Duke P. Kahanamoku, United States	1m.1.4s.
1924	John Weissmuller, United States	59s.
1928	John Weissmuller, United States	58.6s.
1932	Yasuji Miyazaki, Japan	58.2s.
1936	Ferenc Csik, Hungary	57.6s.
1948	Walter Ris, United States	57.3s.
1952	Clarke Scholes, United States	57.4s.
1956	Jon Henricks, Australia	55.4s.

* 100 yards.

220 Yards *

1900	F. C. V. Lane, Australia	2m.25.2s.
1904	C. M. Daniels, United States	2m.44.2s.

400 Meters

1904	C. M. Daniels, United States	6m.16.2s.*
1906	Otto Sheff, Austria	6m.23.8s.
1908	Henry Taylor, Great Britain	5m.36.8s.
1912	G. R. Hodgson, Canada	5m.24.4s.
1920	Norman Ross, United States	5m.26.8s.
1924	John Weissmuller, United States	5m.4.2s.
1928	Albert Zorilla, Argentina	5m.1.6s.
1932	Clarence Crabbe, United States	4m.48.4s.
1936	Jack Medica, United States	4m.44.5s.
1948	William Smith, United States	4m.41s.
1952	Jean Boiteux, France	4m.30.7s.
1956	Murray Rose, Australia	4m.27.3s.

* 440 yards.

500 Meters

1896	Paul Neumann, Austria	8m.12.6s.
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880 Yards

1904	Emil Rausch, Germany	13m.11.4s.
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1,000 Meters

1900	John Jarvis, Great Britain	13m.40.2s.
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1,200 Meters

1896	Alfred Hajos, Hungary	18m.22.2s.
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1,500 Meters

1908	Henry Taylor, Great Britain	22m.48.4s.
1912	G. R. Hodgson, Canada	22m.
1920	Norman Ross, United States	22m.23.2s.
1924	A. M. Charlton, Australia	20m.6.6s.
1928	Arne Borg, Sweden	19m.51.8s.
1932	Kusuo Kitamura, Japan	19m.12.4s.
1936	Noboru Terada, Japan	19m.13.7s.
1948	James McLane, United States	19m.18.5s.
1952	Ford Konno, United States	18m.30s.
1956	Murray Rose, Australia	17m.58.9s.

1,600 Meters

1906	Henry Taylor, Great Britain	28m.28s.
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One Mile

1904	Emil Rausch, Germany	27m.18.2s.
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800-Meter Relay

1908	Great Britain	10m.55.6s.
1912	Australia	10m.11.6s.
1920	United States	10m.4.4s.

1924	United States	9m.53.4s.
1928	United States	9m.36.2s.
1932	Japan	8m.58.4s.
1936	Japan	8m.51.5s.
1948	United States	8m.46s.
1952	United States	8m.31.1s.
1956	Australia	8m.23.6s.

100-Meter Backstroke

1904	Walter Brack, Germany	1m.16.8s.*
1908	Arno Bieberstein, Germany	1m.24.6s.
1912	Harry Hebner, United States	1m.21.2s.
1920	Warren Kealoha, United States	1m.15.2s.
1924	Warren Kealoha, United States	1m.13.2s.
1928	George Kojac, United States	1m.8.2s.
1932	Masaji Kiyokawa, Japan	1m.8.6s.
1936	Adolph Kiefer, United States	1m.5.9s.
1948	Allen Stack, United States	1m.6.4s.
1952	Yoshinobu Oyakawa, United States	1m.5.4s.
1956	David Thiele, Australia	1m.2.2s.

* 100 yards.

200-Meter Butterfly

1956	Bill Yorzyk, United States	2m.19.3s.
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200-Meter Breast Stroke

1908	Frederick Holman, Great Britain	3m.9.2s.
1912	Walter Bathe, Germany	3m.1.8s.
1920	Haken Malmroth, Sweden	3m.4.4s.
1924	R. D. Skelton, United States	2m.56.6s.
1928	Yoshiyuki Tsuruta, Japan	2m.48.8s.
1932	Yoshiyuki Tsuruta, Japan	2m.45.4s.
1936	Tetsuo Hamuro, Japan	2m.42.5s.
1948	Joseph Verdeur, United States	2m.39.3s.
1952	John Davies, Australia	2m.34.4s.
1956	Masura Furukawa, Japan	2m.34.7s.

400-Meter Breast Stroke

1904	Georg Zacharias, Germany	7m.23.6s.
1920	Haken Malmroth, Sweden	6m.31.8s.

1,000-Meter Team Race

1906	Hungary	17m.16.2s.
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Springboard Diving

	Points
1904 G. E. Sheldon, United States	12 2-3
1906 Gottlob Walz, Germany
1908 Albert Zuerner, Germany	85.5
1912 Paul Guenther, Germany	6
1920 L. E. Kuehn, United States	6
1924 A. C. White, United States	7
1928 Pete Desjardins, United States	185.04
1932 Michael Galitzen, United States	161.38
1936 Richard Degener, United States	163.57
1948 Bruce Harlan, United States	163.64
1952 David Browning, United States	205.29
1956 Robert Clotworthy, United States	159.56

Fancy High Diving

	Points
1912 Eric Adlerz, Sweden.....	7
1920 C. E. Pinkston, United States.....	7
1924 A. C. White, United States.....	9

Plain High Diving

	Points
1908 Hjalmar Johanssen, Sweden	83.75
1912 Erik Adlerz, Sweden	7
1920 Arvid Wallman, Sweden	7
1924 Richard Eve, Australia	13½

Plunge for Distance

1904	W. E. Dickey, United States	62 ft. 6 in.
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Platform Diving

	Points
1928 Pete Desjardins, United States.....	98.74
1932 Harold Smith, United States.....	124.80
1936 Marshall Wayne, United States.....	113.58
1948 Samuel Lee, United States.....	130.05
1952 Samuel Lee, United States.....	156.28
1956 Joaquin Capilla, Mexico.....	152.44

WATER POLO

1900 Great Britain	1928 Germany
1904 United States	1932 Hungary
1908 Great Britain	1936 Hungary
1912 Greta Britain	1948 Italy
1920 Great Britain	1952 Hungary
1924 France	1956 Hungary

SWIMMING—WOMEN**100 Meters**

1920 Ethelda Bleibtrey, United States.....	1m.13.6s.
1922 Fanny Durack, Australia.....	1m.22.2s.
1924 Ethel Lackie, United States.....	1m.12.4s.
1928 Albina Osipowich, United States.....	1m.11s.
1932 Helene Madison, United States.....	1m.6.8s.
1936 Hendrika Mastenbroek, Holland.....	1m.5.9s.
1948 Greta Andersen, Denmark.....	1m.6.3s.
1952 Katalin Szoke, Hungary.....	1m.6.8s.
1956 Dawn Fraser, Australia.....	1m.2s.

300 Meters

1920 Ethelda Bleibtrey, United States.....	4m.34s.
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400 Meters

1924 Martha Norelius, United States.....	6m.2.2s.
1928 Martha Norelius, United States.....	5m.42.8s.
1932 Helene Madison, United States.....	5m.28.5s.
1936 Hendrika Mastenbroek, Holland.....	5m.26.4s.
1948 Ann Curtis, United States.....	5m.17.8s.
1952 Valerie Gyenge, Hungary.....	5m.12.1s.
1956 Lorraine Crapp, Australia.....	4m.54.6s.

400-Meter Relay

1912 Great Britain.....	5m.52.8s.
1920 United States.....	5m.11.6s.
1924 United States.....	4m.58.8s.
1928 United States.....	4m.47.6s.
1932 United States.....	4m.38s.
1936 Holland.....	4m.36s.
1948 United States.....	4m.29.2s.
1952 Hungary.....	4m.24.4s.
1956 Australia.....	4m.17.1s.

100-Meter Backstroke

1924 Sybil Bauer, United States.....	1m.23.2s.
1928 Marie Braun, Holland.....	1m.22s.
1932 Eleanor Holm, United States.....	1m.19.4s.
1936 Dina Senff, Holland.....	1m.18.9s.
1948 Karen Harup, Denmark.....	1m.14.4s.
1952 Joan Harrison, South Africa.....	1m.14.3s.
1956 Judy Grinham, Great Britain.....	1m.12.9s.

100-Meter Butterfly

1956 Shelley Mann, United States.....	1m.11s.
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200-Meter Breast Stroke

1924 Lucy Morton, Great Britain.....	3m.33.2s.
1928 Hilde Schrader, Germany.....	3m.12.6s.
1932 Clare Dennis, Australia.....	3m.6.3s.

1936 Hideko Maehata, Japan.....	3m.3.6s.
1948 Nel van Vliet, Netherlands.....	2m.57.2s.
1952 Eva Szekely, Hungary.....	2m.51.7s.
1956 Ursula Happe, Germany.....	2m.53.1s.

Plain High Diving

	Points
1912 Greta Johansson, Sweden.....	39.9
1920 Stefani Fryland, Denmark.....	6
1924 Caroline Smith, United States.....	9

Springboard Diving

	Points
1920 Aileen Riggan, United States.....	9
1924 Elizabeth Becker, United States.....	8
1928 Helen Meany, United States.....	78.62
1932 Georgia Coleman, United States.....	87.52
1936 Marjorie Gestring, United States.....	89.27
1948 Victoria M. Draves, United States.....	108.74
1952 Mrs. Patricia McCormick, United States.....	147.30
1956 Mrs. Patricia McCormick, United States.....	142.36

Platform High Diving

	Points
1928 Elizabeth B. Pinkston, United States.....	31.60
1932 Dorothy Poynton, United States.....	40.26
1936 Mrs. Dorothy Poynton Mill, United States.....	33.93
1948 Victoria M. Draves, United States.....	68.87
1952 Mrs. Patricia McCormick, United States.....	79.37
1956 Mrs. Patricia McCormick, United States.....	84.85

BASKETBALL

1904 United States	1952 United States
1936 United States	1956 United States
1948 United States	

BOXING**Flyweight**

1904 George V. Finnegan, United States
1920 Frank De Genaro, United States
1924 Fidel La Barba, United States
1928 Anton Kocsis, Hungary
1932 Stephen Enekes, Hungary
1936 Willi Kaiser, Germany
1948 Pascual Perez, Argentina
1952 Nate Brooks, United States
1956 Terence Spinks, Great Britain

Bantamweight

1904 O. L. Kirk, United States
1908 H. Thomas, Great Britain
1920 Clarence Walker, South Africa
1924 W. H. Smith, South Africa
1928 Vittorio Tamagnini, Italy
1932 Horace Gwynne, Canada
1936 Ulderico Sergio, Italy
1948 Tibor Csik, Hungary
1952 Pentti Hamalainen, Finland
1956 Wolfgang Behrendt, Germany

Featherweight

1904 O. L. Kirk, United States
1908 R. K. Gunn, Great Britain
1920 Paul Fritsch, France
1924 John Fields, United States
1928 L. Van Klaveren, Holland
1932 Carmelo A. Robledo, Argentina
1936 Oscar Casanovas, Argentina
1948 Ernesto Formenti, Italy
1952 Jan Zachara, Czechoslovakia
1956 Vladimir Safronov, U.S.S.R.

Lightweight

1904	H. J. Spanger, United States
1908	F. Grace, Great Britain
1920	Samuel Mosberg, United States
1924	Harold Nielsen, Denmark
1928	Carlo Orlandi, Italy
1932	Lawrence Stevens, South Africa
1936	Imre Harangi, Hungary
1948	Gerry Dreyer, South Africa
1952	Aureliano Bolognesi, Italy
1956	Richard McTaggart, Great Britain

Light Welterweight

1952	Charles Adkins, United States
1956	Vladimir Enguibanian, U.S.S.R.

Welterweight

1904	Al Young, United States
1920	T. Schneider, Canada
1924	J. S. Delarge, Belgium
1928	Edward Morgan, New Zealand
1932	Edward Flynn, United States
1936	Sten Suvio, Finland
1948	Julius Torma, Czechoslovakia
1952	Zygmunt Chycha, Poland
1956	Necolae Linca, Rumania

Light Middleweight

1952	Laszlo Papp, Hungary
1956	Laszlo Papp, Hungary

Middleweight

1904	Charles Mayer, United States
1908	John Douglas, Great Britain
1920	H. W. Mallin, Great Britain
1924	H. W. Mallin, Great Britain
1928	Piero Toscani, Italy
1932	Carmen Barth, United States
1936	Jean Despeaux, France
1948	Laszlo Papp, Hungary
1952	Floyd Patterson, United States
1956	Guenadii Chatkov, U.S.S.R.

Light Heavyweight

1920	Edward Eagan, United States
1924	H. J. Mitchell, Great Britain
1928	Victorio Avendano, Argentina
1932	David E. Carstens, South Africa
1936	Roger Michlot, France
1948	George Hunter, South Africa
1952	Norvel Lee, United States
1956	James Boyd, United States

Heavyweight

1904	Sam Berger, United States
1908	A. L. Oldham, Great Britain
1920	Rawson, Great Britain
1924	Otto von Porat, Norway
1928	A. Rodriguez Jurado, Argentina
1932	Santiago A. Lovell, Argentina
1936	Herbert Runge, Germany
1948	Rafael Iglesias, Argentina
1952	Edward Sanders, United States
1956	Peter Rademacher, United States

FIGURE SKATING**Men**

Points

1908	Ulrich Salchow, Sweden	377.3
1920	Gillis Grafstrom, Sweden	405.5
1924	Gillis Grafstrom, Sweden	367.89
1928	Gillis Grafstrom, Sweden	385.77

1932	Karl Schaefer, Austria	371.1
1936	Karl Schaefer, Austria	422.7
1948	Richard Button, United States	191.177
1952	Richard Button, United States	192.256
1956	Hayes Alan Jenkins, United States	166.4

Women

1908	Mrs. Madge Syers, Great Britain	252.5
1920	Magda Mauroy, Sweden	182.7
1924	Mrs. Herma Szabo-Planck, Austria	299.17
1928	Sonja Henie, Norway	350.3
1932	Sonja Henie, Norway	328.94
1936	Sonja Henie, Norway	424.5
1948	Barbara Ann Scott, Canada	163.077
1952	Jeannette Altwegg, Great Britain	161.756
1956	Tenley Albright, United States	169.6

Pairs

1908	Alma Huber-Heinrich Burger, Germany	11.2
1920	Ludovika and Walter Jacobsson, Finland	11.5
1924	Helene Englemann-Alfred Berger, Austria	10.64
1928	Andree Joly-Pierre Brunet, France	11.2
1932	Andree and Pierre Brunet, France	10.95
1936	Maxie Herber-Ernst Baier, Germany	11.5
1948	Micheline Lannoy-Pierre Baughniet, Belgium	11.227
1952	Ria and Paul Falk, Germany	11.4
1956	Elisabeth Schwarz-Kurt Oppelt, Austria	11.31

Special Figures

1908	Nikolai Panin, Russia	43.8
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SPEED SKATING**500 Meters**

Points

1924	Charles Jewtraw, United States	44s.
1928	Clas Thunberg, Finland, and Bernt Even- sen, Norway (tie)	43.4s.
1932	John Shea, United States	43.4s.
1936	Ivar Ballangrud, Norway	43.4s.
1948	Finn Helgesen, Norway	43.1s.
1952	Ken Henry, United States	43.2s.
1956	Eugeny Grishin, U.S.S.R.	40.2s.

1,500 Meters

1924	Clas Thunberg, Finland	2m. 20.8s.
1928	Clas Thunberg, Finland	2m. 21.1s.
1932	John Shea, United States	2m. 57.5s.
1936	Charles Mathisen, Norway	2m. 19.2s.
1948	Sverre Farstad, Norway	2m. 17.6s.
1952	Hjalmar Andersen, Norway	2m. 20.4s.
1956	Eugeny Grishin, U.S.S.R., and Yuri Mik- hailov, U.S.S.R. (tie)	2m. 8.6s.

5,000 Meters

1924	Clas Thunberg, Finland	8m. 39s.
1928	Ivar Ballangrud, Norway	8m. 50.5s.
1932	Irving Jaffee, United States	9m. 40.8s.
1936	Ivar Ballangrud, Norway	8m. 19.6s.
1948	Reidar Liakley, Norway	8m. 29.4s.
1952	Hjalmar Andersen, Norway	8m. 10.6s.
1956	Boris Shilkov, U.S.S.R.	7m. 48.7s.

10,000 Meters

1924	Julien Skutnabb, Finland	18m. 4.8s.
1928	*Irving Jaffee, United States	18m. 36.5s.
1932	Irving Jaffee, United States	19m. 13.6s.
1936	Ivar Ballangrud, Norway	17m. 24.3s.
1948	Ake Seyffarth, Sweden	17m. 26.3s.
1952	Hjalmar Andersen, Norway	16m. 45.8s.
1956	Sigge Ericsson, Sweden	16m. 35.9s.

* Thaw caused cancellation of event. Jaffee had best time.

Combined

1924	Clas Thunberg, Finland	5.5 pts.
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Other 1956 Olympic Champions

Field hockey.....	India
Ice Hockey.....	U.S.S.R.
Soccer.....	U.S.S.R.

Bobsledding

2-man—Italy
4-man—Switzerland

Canoeling

KAYAK

1,000-m. singles—Gert Fredriksson, Sweden
1,000-m. pairs—Michael Scheuer-Meinrad Miltenberger, Germany
10,000-m. singles—Gert Fredriksson, Sweden
10,000-m. pairs—Janos Uranyi-Laszlo Fabian, Hungary
500-m. women's singles—Elisavota Dementieva, U.S.S.R.

CANADIAN

1,000-m. singles—Leon Rottman, Rumania
1,000-m. pairs—Alexe Dumitru-Simion Ismailciuc, U.S.S.R.
10,000-m. singles—Leon Rottman, Rumania
10,000-m. pairs—Pavel Kharin-Gratsian Botev, U.S.S.R.

Cycling

1,000-m. sprint—Michel Rousseau, France
1,000-m. time trial—Leandro Faggin, Italy
2,000-m. tandem—Ian Browne-Tony Marchanti, Austria
4,000-m. tandem—Italy
Road race—Ercole Baldini, Italy. Team—France

Equestrian

3-day event—Petrus Kastenman, Sweden. Team—Great Britain
Dressage—Henri St. Cyr, Sweden. Team—Sweden
Jumping—Hans Winkler, Germany. Team—Germany

Fencing

Foil—Christian D'Oriola, France. Team—Italy
Epee—Carlo Pavesti, Italy. Team—Italy
Saber—Rudolf Karpati, Hungary. Team—Hungary
Women's foil—Gillian Sheen, Great Britain

Gymnastics

Pommed horse—Boris Chakhline, U.S.S.R.
Parallel bars—Victor Tchoukarine, U.S.S.R.
Free standing exercises—Valentine Mouratov, U.S.S.R.
Rings—Albert Azarian, U.S.S.R.
Horizontal bar—Takashi Ono, Japan
Combined exercises—Victor Tchoukarine, U.S.S.R.
Long horse—Helmuth Bantz, Germany, and Valentine Mouratov, U.S.S.R. (tie)
Team—U.S.S.R.

WOMEN

Beam exercises—Agnes Keleti, Hungary
Free standing exercises—Agnes Keleti, Hungary, and Larisa Latynina, U.S.S.R. (tie)
Side horse vaulting—Larisa Latynina, U.S.S.R.
Parallel bars—Agnes Keleti, Hungary
Combined exercises—Larisa Latynina, U.S.S.R.
Team drill—Hungary
Team—U.S.S.R.

Modern Pentathlon

Individual—Lars Hall, Sweden
Team—U.S.S.R.

Rowing

Eights—United States (Yale)
Fours with coxswain—Italy
Fours without coxswain—Canada
Pairs with coxswain—United States (Art Ayrault, Conn Findlay, Kurt Seiffert)
Pairs without coxswain—United States (James Fifer, Duval Hecht)
Double sculls—U.S.S.R. (Alexandre Berkoutov, Iuri Tiukalov)
Single sculls—Vyacheslav Ivanov, U.S.S.R.

Shooting

Free pistol—Pentti Limnosvuo, Finland
Clay pigeon—Galliano Rossini, Italy
Free rifle—Vassili Borissov, U.S.S.R.
Running deer—Vitali Romanenko, U.S.S.R.
Small bore rifle (prone, kneeling, standing)—Anatoli Bogdanov, U.S.S.R.
Rapid silhouette pistol—Stevan Petrescu, Rumania
Small bore rifle—Gerald Ouellette, Canada

Skiing

Spacial slalom—Toni Sailer, Austria
Giant slalom—Toni Sailer, Austria
Downhill—Toni Sailer, Austria
15-km. race—Hallgeir Brenden, Norway
30-km. race—Veikko Hakulin, Finland
50-km. race—Sixten Jernberg, Sweden
Nordic combined—Sverre Stenersen, Norway
40-km. relay—U.S.S.R.

WOMEN

Special slalom—Renee Colliard, Switzerland
Giant slalom—Ossi Reichert, Germany
Downhill—Madeleine Berthod, Switzerland
10-km. race—Lyubov Kozyreva, U.S.S.R.
15-km. relay—Finland

Weightlifting

Bantamweight—Charles Vinci, United States
Featherweight—Isaac Berger, United States
Lightweight—Igor Rybak, U.S.S.R.
Middleweight—Fedor Bogdanovski, U.S.S.R.
Light heavyweight—Tommy Kono, United States
Middle heavyweight—Arkadi Vorobiev, U.S.S.R.
Heavyweight—Paul Anderson, United States

Wrestling

FREE STYLE

Flyweight—Marian Tsalkalmanidze, U.S.S.R.
Bantamweight—Mustafa Dagistanli, Turkey
Featherweight—Shoze Sasabara, Japan
Lightweight—Emamli Habibi, Iran
Welterweight—Mistro Ikeda, Japan
Middleweight—Nikolai Nikolov, Bulgaria
Light heavyweight—Gholam Takhti, Iran
Heavyweight—Hamid Kaplan, Turkey
Team—Turkey

GRECO-ROMAN

Flyweight—Nikolai Soloviev, U.S.S.R.
Bantamweight—Konstantin Vyropaev, U.S.S.R.
Featherweight—Rauno Makinen, Finland
Lightweight—Kyosti Lehtonen, Finland
Welterweight—Mithat Bayrak, Turkey
Middleweight—Vuivi Kartoza, U.S.S.R.
Light heavyweight—Valentine Nikolaev, U.S.S.R.
Heavyweight—Anatoli Parfenov, U.S.S.R.
Team—U.S.S.R.

Yachting

5.5-meter class—Rush V, Sweden
Star class—Kathleen, United States
Dragon class—Slaghoken II, Sweden
Dinghy finn class—Paul Elvstrom, Denmark
Sharpie class—Jest, New Zealand

TRACK AND FIELD

RUNNING, jumping, hurdling and throwing weights—track and field sports, in other words—are as natural to boys and young men as eating, drinking and breathing. Unorganized competition in this form of sport goes back beyond the Cave Man era. Organized competition begins with the first recorded Olympic Games in Greece, 776 B. C., when Coroebus of Elis won the only event on the program, a race of approximately 200 yards. The Olympic Games, with an ever-widening program of events, continued until “the glory that was Greece” had faded and “the grandeur that was Rome” was tarnished, and finally were abolished by decree of Emperor Theodosius I of Rome in A. D. 394. The Tailteann Games of Ireland are supposed to have antedated the first Olympic Games by some centuries, but we have no records of the specific events and winners thereof.

Professional contests of speed and strength were popular at all times and in many lands, but the widespread competition of amateur athletes in track and field

sports is a comparatively modern development. The first organized amateur athletic meet of record was sponsored by the Royal Military Academy at Woolwich, England, in 1849. Oxford and Cambridge track and field rivalry began in 1864 and the English amateur championships were established in 1866. In the United States such organizations as the New York Athletic Club and the Olympic Club of San Francisco conducted track and field meets in the 1870's, and a few colleges joined to sponsor a meet in 1874. The success of the college meet led to the formation of the Intercollegiate Association of Amateur Athletes of America and the holding of an annual set of championship games beginning in 1876.

Many athletic clubs joined the National Association of Amateur Athletes of America, formed in 1879, but dissension broke up this organization and the Amateur Athletic Union, organized in 1888, has been the ruling body in American amateur athletics since that time.

Track and Field Statistics

Source: Amateur Athletic Union of the United States.

MEN'S WORLD RECORDS

Recognized by the International Amateur Athletic Federation as of Sept. 15, 1958.

RUNNING

Event	Record	Holder	Home country	Where made	Date
		Melvin E. Patton	United States	Fresno, Calif.	May 15, 1948
		Hector Hogan	Australia	Sydney	Mar. 13, 1954
		James Golliday	United States	Evanston, Ill.	May 14, 1955
		Leamon King	United States	Fresno, Calif.	May 12, 1956
100 yd.	9.3 s.	David Sime	United States	Durham, N. C.	May 19, 1956
		David Sime	United States	Sanger, Calif.	June 9, 1956
		David Sime	United States	Raleigh, N. C.	May 18, 1957
		Bobby Morrow	United States	Austin, Tex.	June 14, 1957
		Ray Norton	United States	San Jose, Calif.	April 12, 1958
220 yd.	20 s.	David Sime	United States	Sanger, Calif.	June 9, 1956
440 yd.	45.7 s.	Glenn Davis	United States	Berkeley, Calif.	June 14, 1958
880 yd.	1 m. 46.8 s.	Tom Courtney	United States	Los Angeles	May 24, 1957
1 mi.	3 m. 57.2 s.	Derek Ibbotson	Great Britain	London	July 19, 1957
2 mi.	8 m. 33.4 s.	Sandor Iharos	Hungary	London	May 30, 1955
3 mi.	13 m. 14.2 s.	Sandor Iharos	Hungary	Budapest	Nov. 23, 1955
6 mi.	27 m. 43.8 s.	Sandor Iharos	Hungary	Budapest	July 15, 1956
10 mi.	48 m. 12 s.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951
15 mi.	1 h. 14 m. 1 s.	Emil Zatopek	Czechoslovakia	Celakovice, Czech.	Oct. 29, 1955
1 hr.	12 mi. 810 yd.	Emil Zatopek	Czechoslovakia	Boleslav, Czech.	Sept. 29, 1951

WALKING

Event	Record	Holder	Home country	Where made	Date
2 mi.	12 m. 45 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5 mi.	34 m. 32.8 s.	J. Dolezal	Czechoslovakia	Manchester, Eng.	Oct. 15, 1955
7 mi.	48 m. 15.2 s.	Werner Hardmo	Sweden	Kumla, Sweden	Sept. 9, 1945
10 mi.	1 h. 10 m. 45.8 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	April 30, 1954
20 mi.	2 h. 33 m. 9.4 s.	J. Dolezal	Czechoslovakia	Boleslav, Czech.	May 14, 1954
30 mi.	4 h. 12 m. 3.4 s.	Ladislav Moc	Czechoslovakia	Prague	June 21, 1956
1 hr.	8 mi. 1925 yd.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	16 mi. 403 yds.	Edward Ailsopp	Australia	Melbourne	Sept. 22, 1956

RUNNING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
100 meters	10.1 s.	Willie Williams	United States	Berlin	Aug. 3, 1956
		Ira Murchison	United States	Berlin	Aug. 4, 1956
		Leamon King	United States	Ontario, Calif.	Oct. 20, 1956
		Leamon King	United States	Santa Ana, Calif.	Oct. 27, 1956
200 m.	20 s.	David Sime	United States	Sanger, Calif.	June 9, 1956
400 m.	45.2 s.	Louis Jones	United States	Los Angeles	June 30, 1956
800 m.	1 m. 45.7 s.	Roger Moens	Belgium	Oslo	Aug. 3, 1955
1,000 m.	2 m. 19 s.	Audun Boysen	Norway	Göteborg, Sweden	Aug. 30, 1955
		Istvan Rozsavolgyi	Hungary	Tata, Hungary	Sept. 21, 1955
1,500 m.	3 m. 38.1 s.	Stanislav Jungwirth	Czechoslovakia	Boleslav, Czech.	July 12, 1957
2,000 m.	5 m. 2.2 s.	Istvan Rozsavolgyi	Hungary	Budapest	Oct. 2, 1955
3,000 m.	7 m. 52.8 s.	Gordon Pirie	Great Britain	Malmo, Sweden	Sept. 4, 1956
5,000 m.	13 m. 35 s.	Vladimir Kuts	Russia	Rome	Oct. 13, 1957
10,000 m.	28 m. 30.4 s.	Vladimir Kuts	Russia	Moscow	Sept. 11, 1956
20,000 m.	59 m. 51.6 s.	Emil Zatopek	Czechoslovakia	Bratislava	Sept. 29, 1951
25,000 m.	1 h. 16 m. 36.4 s.	Emil Zatopek	Czechoslovakia	Celakovice, Czech.	Oct. 29, 1955
30,000 m.	1 h. 35 m. 1 s.	Albert Ivanov	Russia	Moscow	June 6, 1957
1 hr.	20.052 meters 40 cm.	Emil Zatopek	Czechoslovakia	Boleslav	Sept. 29, 1951
3,000 m. steeplechase	8 m. 35.6 s.	Sandor Rozsnyoi	Hungary	Budapest	Sept. 16, 1956

WALKING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
3,000 m.	11 m. 51.8 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5,000 m.	20 m. 26.8 s.	Werner Hardmo	Sweden	Kumla	July 31, 1945
10,000 m.	42 m. 39.6 s.	Werner Hardmo	Sweden	Kumla	Sept. 9, 1945
15,000 m.	1 h. 5 m. 18 s.	Leonid Spirin	Russia	Dnepropetrovsk, Rus.	Sept. 24, 1957
20,000 m.	1 h. 27 m. 58.2 s.	Mikhail Lavrov	Russia	Moscow	Aug. 13, 1956
30,000 m.	2 h. 20 m. 40.2 s.	Anatoli Vedjakov	Russia	Moscow	Oct. 7, 1955
50,000 m.	4 h. 21 m. 7 s.	Ladislav Moc	Czechoslovakia	Prague	June 21, 1956
1 hr.	13.812 m.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	26.117 m.	Edward Allsop	Australia	Melbourne	Sept. 22, 1956

HURDLES (10 hurdles)

Event	Record	Holder	Home country	Where made	Date
120 yd.	13.4 s.	Jack Davis	United States	Bakersfield, Calif.	June 22, 1956
		Jack Davis	United States	Bendigo, Australia	Nov. 17, 1956
		Milt Campbell	United States	Compton, Calif.	May 31, 1957
220 yd.	22.1 s.	Elias Gilbert	United States	Raleigh, N. C.	May 17, 1958
440 yd.	49.7 s.	Gerhardus Potgieter	South Africa	Cardiff, Wales	July 22, 1958
110 m.	13.4 s.	Jack Davis	United States	Bakersfield, Calif.	June 22, 1956
200 m.	22.1 s.	Elias Gilbert	United States	Raleigh, N. C.	May 17, 1958
400 m.	49.5 s.	Glenn Davis	United States	Los Angeles	June 29, 1956

RELAY RACES

Event	Record	Holder	Home country	Where made	Date
440 yd. (4 x 110)	39.7 s.	Abilene Christian	United States	Modesto, Calif.	May 31, 1958
		(W. Griggs, W. Woodhouse, J. Segrest, B. Morrow)			
880 yd. (4 x 220)	1 m. 22.7 s.	University of Texas	United States	Austin, Tex.	April 5, 1957
		(W. Wilson, E. Southern, H. Gainey, B. Whilden)			
1 mi. (4 x 440 yd.)	3 m. 7.3 s.	National Team	United States	Los Angeles	Nov. 1, 1956
2 mi. (4 x 880)	7 m. 22.8 s.	(C. Jenkins, L. Spurrier, T. Courtney, L. Jones)			
		Occidental	United States	Los Angeles	May 24, 1957
4 mi. (4 x 1 mile)	16 m. 41 s.	(T. White, S. Reisbord, L. Wray, T. Hadley)			
		National Team	Gt. Brit. & No. Ire.	London	Aug. 1, 1953
		(C. Chataway, G. Nankeville, D. Seaman, R. Bannister)			

RELAY RACES—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
400 m. (4 x 100)	39.5 s.	National Team	United States	Melbourne	Dec. 1, 1956
		(T. Baker, L. King, I. Murchison, R. Morrow)			
800 m. (4 x 200)	1 m. 22.7 s.	University of Texas	United States	Austin, Tex.	April 5, 1957
		(W. Wilson, E. Southern, H. Gainey, B. Whilden)			
1,600 m. (4 x 400)	3 m. 3.9 s.	National Team	Jamaica, B.W.I.	Helsinki	July 27, 1952
3,200 m. (4 x 800)	7 m. 15.8 s.	(A. Wint, L. Laing, H. McKenley, G. Rhoden)			
		National Team	Belgium	Brussels	Aug. 8, 1956
6,000 m. (4 x 1,500)	15 m. 14.8 s.	(A. Bailleur, A. Langenus, E. Leva, R. Moens)			
		Budapest H. S. E.	Hungary	Budapest	Sept. 29, 1955
		(F. Mikes, L. Tabori, I. Rozsavolgyi, S. Iharos)			

FIELD EVENTS

Event	Record	Holder	Home country	Where made	Date
High jump.....	7 ft. 1½ in.	Yuri Stepanov.....	Russia.....	Leningrad.....	July 13, 1957
Running broad jump.....	26 ft. 8¼ in.	Jesse Owens.....	United States.....	Ann Arbor.....	May 25, 1935
Hop, step, jump.....	54 ft. 3¼ in.	A. F. da Silva.....	Brazil.....	Mexico City.....	Mar. 16, 1955
Pole vault.....	15 ft. 8¼ in.	Bob Gutowski.....	United States.....	Palo Alto, Calif.....	April 27, 1957
16-lb. shot put.....	63 ft. 1¼ in.	Parry O'Brien.....	United States.....	Los Angeles.....	Nov. 1, 1956
Discus throw.....	194 ft. 6 in.	Fortune Gordien.....	United States.....	Pasadena, Calif.....	Aug. 22, 1953
Javelin throw.....	281 ft. 2 in.	Egil Danielsen.....	Norway.....	Melbourne.....	Nov. 26, 1956
Hammer throw.....	225 ft. 4 in.	Harold Connolly.....	United States.....	Bakersfield, Calif.....	June 20, 1958

DECATHLON

Points	Holder	Home country	Where made	Date
7,985 pts.....	Rafer Johnson.....	United States.....	Kingsburg, Calif.....	June 10-11, 1955

WOMEN'S WORLD RECORDS

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.....	10.3 s.	Marlene Mathews.....	Australia.....	Sydney.....	Mar. 20, 1958
220 yd.....	23.4 s.	Marlene Mathews.....	Australia.....	Sydney.....	Mar. 22, 1958
440 yd.....	55.6 s.	Molly Hiscox.....	Great Britain.....	London.....	Aug. 2, 1958
880 yd.....	2 m. 6.6 s.	Nina Otkalenko.....	Russia.....	Moscow.....	June 10, 1956
60 m.....	7.3 s.	Stella Walasiewicz.....	Poland.....	Lemberg, Pol.....	Sept. 24, 1933
100 m.....	11.3 s.	Shirley de la Hunt.....	Australia.....	Warsaw.....	Aug. 4, 1955
200 m.....	23.2 s.	Betty Cuthbert.....	Australia.....	Sydney.....	Sept. 16, 1956
400 m.....	53.6 s.	Maria Itkina.....	Russia.....	Moscow.....	July 6, 1957
800 m.....	2 m. 5 s.	Nina Otkalenko.....	Russia.....	Zagreb, Yugoslavia.....	Sept. 24, 1956

RELAY RACES

440 yd. (4 x 110).....	45.6 s.	National Team.....	Australia.....	Sydney.....	Dec. 5, 1956
		(S. de la Hunt, N. Croker, F. Mellor, B. Cuthbert)			
400 m. (4 x 100).....	44.5 s.	National Team.....	Australia.....	Melbourne.....	Dec. 1, 1956
		(S. de la Hunt, N. Croker, F. Mellor, B. Cuthbert)			
880 yd. (4 x 220).....	1 m. 36.3 s.	National Team.....	Australia.....	Sydney.....	Dec. 5, 1956
		(M. Mathews, N. Croker, F. Mellor, B. Cuthbert)			
800 m. (4 x 200).....	1 m. 36.3 s.	National Team.....	Australia.....	Sydney.....	Dec. 5, 1956
		(M. Mathews, N. Croker, F. Mellor, B. Cuthbert)			
2,400 m. (3 x 800).....	6 m. 27.6 s.	National Team.....	Russia.....	Moscow.....	Sept. 11, 1955
		(N. Otkalenko, L. Lisenko, L. A. Lapshina)			
1½ mi. (3 x 880).....	6 m. 36.2 s.	National Team.....	Hungary.....	Tata.....	July 21, 1954
		(A. Bacskai, A. Oros, A. Kazi)			

HURDLES

80 m.....	10.6 s.	Zenta Gastl.....	Germany.....	Frenchen.....	July 29, 1956
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FIELD EVENTS

High jump.....	5 ft. 10¾ in.	Yolanda Balas.....	Rumania.....	Bucharest.....	June 22, 1958
Broad jump.....	20 ft. 10 in.	Elzbieta Krzeskinska.....	Poland.....	Budapest.....	Aug. 20, 1956
		Elzbieta Krzeskinska.....	Poland.....	Melbourne.....	Nov. 27, 1956
Shot put.....	54 ft. 11¼ in.	Galina Zybinska.....	Russia.....	Tashkent, Russia.....	Oct. 13, 1956
Discus throw.....	187 ft. 1½ in.	Nina Dumbadze.....	Russia.....	Tbilisi, Russia.....	Oct. 18, 1952
Javelin throw.....	188 ft. 4 in.	Anna Pazera.....	Australia.....	Cardiff, Wales.....	July 24, 1958

PENTATHLON

4,846 pts.....	Galina Bystrova.....	Russia.....	Odessa.....	Oct. 15-16, 1957
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U. S. BOBSLEDDING RECORDS

Records for the Mt. Van Hoevenberg slide at Lake Placid, N. Y., the only bobsled run in America:

OLYMPIC BOBRUN (5,178 Feet)

(Times in minutes and seconds)

Two-man (single heat)—Stan Benham-Pat Martin, Sno Birds of Lake Placid (Feb. 16, 1957).....	1:12.60
Two-man (4 heats)—Stan Benham-Pat Martin, Sno Birds of Lake Placid (Feb. 16, 1957).....	4:52.83
Four-man (single heat)—Stan Benham, Pat Martin, Charles Pandolph, John Helmer, Sno Birds of Lake Placid (Feb. 22, 1957).....	1:08.88
Four-man (4 heats)—Art Tyler, Doug Tyler, Parker Vooris, Tom Butler, Adirondack B. C.....	4:41.36

HALF-MILE COURSE (2,323 Feet)

Two-man (single heat)—James Bickford-Hubert Miller, Saranac Lake B. C. (Jan. 9, 1955).....	0:39.15
Two-man (4 heats)—James Bickford-Pat Buckley, Saranac Lake B. C. (Jan. 26, 1946).....	2:40.61
Four-man (single heat)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946).....	0:37.08
Four-man (4 heats)—James Bickford, driver; Pat Buckley; Lucien Miron; William Dupree, brake, Saranac Lake B. C. (Jan. 27, 1946).....	2:29.07

HISTORY OF THE RECORD FOR THE MILE RUN

Time	Athlete	Country	Year	Where Made
4:56.0	Charles Lawes	England	1864	England
4:36.5	Richard Webster	England	1865	England
4:29.0	William Chinnery	England	1868	England
4:28.8	W. C. Gibbs	England	1868	England
4:26.0	Walter Slade	England	1874	England
4:24.5	Walter Slade	England	1875	London, England
4:23.2	Walter George	England	1880	London, England
4:21.4	Walter George	England	1882	London, England
4:19.4	Walter George	England	1882	London, England
4:18.4	Walter George	England	1884	Birmingham, England
4:18.2	Fred Bacon	Scotland	1894	Edinburgh, Scotland
4:17.0	Fred Bacon	Scotland	1895	London, England
4:15.6	Thomas Conneff	United States	1895	Travers Island, N. Y.
4:15.4	John Paul Jones	United States	1911	Cambridge, Mass.
4:14.4	John Paul Jones	United States	1913	Cambridge, Mass.
4:12.6	Norman Taber	United States	1915	Cambridge, Mass.
4:10.4	Paavo Nurmi	Finland	1923	Stockholm, Sweden
4:09.2	Jules Ladoumegue	France	1931	Paris, France
4:07.6	Jack Lovelock	New Zealand	1933	Princeton, N. J.
4:06.8	Glenn Cunningham	United States	1934	Princeton, N. J.
4:06.4	Sydney Wooderson	England	1937	London, England
4:06.2	Gunder Hagg	Sweden	1942	Göteborg, Sweden
4:06.2	Arne Andersson	Sweden	1942	Stockholm, Sweden
4:04.6	Gunder Hägg	Sweden	1942	Stockholm, Sweden
4:02.6	Arne Andersson	Sweden	1943	Göteborg, Sweden
4:01.6	Arne Andersson	Sweden	1944	Malmö, Sweden
4:01.4	Gunder Hägg	Sweden	1945	Malmö, Sweden
3:59.4	Roger Bannister	England	1954	Oxford, England
3:58.0	John Landy	Australia	1954	Turku, Finland
3:57.2	Derek Ibbotson	England	1957	London, England
3:54.5*	Herb Elliott	Australia	1958	Dublin, Ireland

* Pending approval.

Runs Mile in 3:58.6—Finishes Fifth in Race!

Until May 6, 1954, the day Roger Bannister of England ran the mile in 3 minutes 59.4 seconds, many observers clung to the belief it was impossible for man to dip below four minutes.

The progress man has made since is best illustrated by the performance of Albert Thomas, an Australian, four years after Bannister's epic feat. Competing in Dublin, Ireland, on Aug. 6, 1958, Thomas went by the finish line in 3:58.6, four-fifths of a second faster than Bannister's clocking, and netted no more than a dismal fifth place in the race! It was in this race that

Herb Elliott, Thomas' countryman, shattered the world record with a time of 3:54.5.

When Elliott, on Sept. 3, 1958, won a mile in London, in 3:55.4, it marked the tenth time he had bettered four minutes in the calendar year. From Bannister in '54 to Elliott in '58, the mile had been run under four minutes 46 times. Only one of these was performed by an American. Don Bowden of the University of California ran 3:58.7 at Stockton, Calif., on June 1, 1957.

WORLD'S FASTEST MILES

Time	Athlete	Country	Date	Where Made
3:54.5	Herb Elliott	Australia	Aug. 6, 1958	Dublin, Ireland
3:55.4	Herb Elliott	Australia	Sept. 3, 1958	London, England
3:55.9a	Merv Lincoln	Australia	Aug. 6, 1958	Dublin, Ireland
3:57.2	Derek Ibbotson	England	July 19, 1957	London, England
3:57.5b	Ron Delany	Ireland	Aug. 6, 1958	Dublin, Ireland
3:57.5c	Murray Halberg	New Zealand	Aug. 6, 1958	Dublin, Ireland
3:57.8	Herb Elliott	Australia	May 16, 1958	Los Angeles, Calif.
3:57.9	Herb Elliott	Australia	June 21, 1958	Bakersfield, Calif.
3:58.0	John Landy	Australia	June 21, 1954	Turku, Finland
3:58.0	Herb Elliott	Australia	Aug. 29, 1958	Malmö, Sweden
3:58.1	Herb Elliott	Australia	June 6, 1958	Compton, Calif.
3:58.4	Derek Ibbotson	England	June 15, 1957	Glasgow, Scotland
3:58.5	Dan Waern	Sweden	Sept. 4, 1957	Malmö, Sweden
3:58.5a	Merv Lincoln	Australia	June 21, 1958	Bakersfield, Calif.

aFinished second. bFinished third. cFinished fourth.

BOWLING

THE GAME of bowling that is the favorite sport of millions of "keglers" in the United States is an indoor development of the more ancient outdoor game that survives as lawn bowling. The outdoor game is prehistoric in origin and probably goes back to Primitive Man and round stones that were rolled at some target. It is believed that a game something like nine-pins was popular among the Dutch, Swiss and Germans as long ago as A.D. 1200 at which time the game was played outdoors with an alley consisting of a single plank 12 to 18 inches wide along which was rolled a ball toward three rows of three pins each placed at the far end of the alley. When the first indoor alleys were built and how the game was modified from time to time are matters of dispute. Much of the confusion arises from a lack of certainty as to which game is meant, "bowls" or "bowling", one with a "jack" and the other with "pins", in historical passages.

It is supposed that the early settlers of New Amsterdam (New York City) being Dutch, they brought their two bowling games with them. About a century ago the game of nine-pins was flourishing in the United States but so corrupted by gambling on matches that it was barred by law in New York and Connecticut. Since the law specifically barred "nine-pins", it was eventually evaded by adding another pin and thus legally making it a new game. The genius who thought up that simple method of outwitting the law and putting a popular game in motion once more remained modestly anonymous. With the increase in the number of pins, the old diamond formation of nine-pins was abandoned for the triangle set-up of ten-pins that remains the rule to this day. Various organizations were formed to make rules for bowling and supervise competition in the United States but none was successful until the American Bowling Congress, organized Sept. 9, 1895, became the ruling body.

Bowling Statistics

Source: American Bowling Congress.

American Bowling Congress Tournament Records

Type of record	Holder and home city	Score	Year
High team total	Birk Bros., Chicago	3234	1938
High team game	Falstaff Beer, San Antonio, Texas	1226	1958
High doubles total	Steve Nagy-John Klares, Cleveland	1453	1952
High doubles game	J. Gworek—H. Kmidowski, Buffalo	544	1946
High singles total	Lee Jougard, Detroit	775	1951
High all events total	Jim Spalding, Louisville, Ky.	2088	1957
High 3 games in any event	Lee Jougard, Detroit	775	1951

AMERICAN BOWLING CONGRESS CHAMPIONS

Year	Singles	Score	Doubles	Score
1934	Jerry Vidro, Grand Rapids, Mich.	721	G. Rudolph—J. Ryan, Waukegan, Ill.	1321
1935	Don Brokaw, Canton, Ohio	733	C. Summerix—H. Souers, Akron, Ohio	1348
1936	Charles Warren, Springfield, Ill.	735	A. Stanina—M. Straka, Chicago, Ill.	1347
1937	Gene Gagliardi, Mt. Vernon, N. Y.	749	V. Gibbs, Kansas City, Mo.—N. Burton, Dallas, Texas	1359
1938	Knute Anderson, Moline, Ill.	746	D. Johnson—F. Snyder, Indianapolis, Ind.	1337
1939	Jim Danek, Forest Park, Ill.	730	P. Icuss—M. Fowler, Steubenville, Ohio	1405
1940	Ray Brown, Terre Haute, Ind.	742	H. Freitag—J. Sinke, Chicago, Ill.	1346
1941	Fred Ruff, Belleville, Ill.	745	W. Lee—R. Farness, Madison, Wis.	1346
1942	John Stanley, Cleveland, Ohio	756	E. Nowicki—G. Baier, Milwaukee, Wis.	1377
1946	Leo Rollick, Los Angeles, Calif.	737	J. Gworek—H. Kmidowski, Buffalo, N. Y.	1366
1947	Junie McMahon, Chicago	740	Ed Doerr, Jr.—Len Springmeyer, St. Louis	1350
1948	Lincoln Protich, Akron, Ohio	721	J. Towns—W. Sweeney, Chicago	1361
1949	Bernard Rusche, St. Bernard, Ohio	716	D. Van Boxel, Green Bay—E. Bernhardt, Sturgeon Bay	1332
1950	Everett Leins, Aurora, Ill.	757	W. Ebosh—E. Linsz, Cleveland	1325
1951	Lee Jougard, Detroit, Mich.	775	Bob Benson—Ed Marshall, Lansing, Mich.	1334
1952	Al Sharkey, Chicago	758	Steve Nagy-John Klares, Cleveland	1453
1953	Frank Santore, Long Island City, N. Y.	749	Eddie Koep—Joe Kissoff, Cleveland	1339
1954	Tony Sparando, Rego Park, N. Y.	723	Don McClaren, St. Louis—Billy Welu, Houston	1335
1955	Eddie Gerzine, Milwaukee	738	G. Pacropis—H. Zoeller, Wilkes Barre, Pa.	1365
1956	George Wade, Steubenville, Ohio	744	Bill Lillard—Stan Gifford, Chicago	1331
1957	Bob Allen, Yonkers, N. Y.	729	Ron Jones—Joe Meszaros, Sterling, Ohio	1369

American Bowling Congress Champions (cont.)

Year	All-events	Score	Team	Score
1934	Walt Reppenhausen, Detroit, Mich.....	1972	Strohs, Detroit, Mich.....	3089
1935	Ora Mayer, San Francisco, Calif.....	2022	Wolfe Tire Service, Niagara Falls, N. Y.....	3029
1936	John Murphy, Indianapolis, Ind.....	2006	Falls City Hi-Bru, Indianapolis, Ind.....	3089
1937	Max Stein, Belleville, Ill.....	2070	Krakow Furniture, Detroit, Mich.....	3118
1938	Don Beatty, Jackson, Mich.....	1978	Birk Bros., Chicago, Ill.....	3234
1939	Joe Wilman, Chicago, Ill.....	2028	Fife Electric, Detroit, Mich.....	3151
1940	Fred Fisher, Buffalo, N. Y.....	2001	Monarch Beer, Chicago, Ill.....	3047
1941	Harold Kelly, South Bend, Ind.....	2013	Vogel Bros., Forest Park, Ill.....	3065
1942	Stan Moskal, Saginaw, Mich.....	1973	Budweiser, Chicago, Ill.....	3131
1946	Joe Wilman, Chicago, Ill.....	2054	Llo-da-mar Bowl, Santa Monica, Calif.....	3023
1947	Junie McMahon, Chicago.....	1965	Eddie and Earl Linsz, Cleveland, Ohio.....	3032
1948	Ned Day, West Allis, Wis.....	1979	Washington Shirts, Chicago.....	3007
1949	John Small, Chicago.....	1941	Jimmie Smith's, South Bend, Ind.....	3027
1950	Frank Santore, Long Island City, N. Y.....	1981	Pepsi-Cola, Detroit.....	2952
1951	Tony Lindeman, Detroit.....	2005	C. B. O'Malley Oldsmobile, Chicago.....	3070
1952	Steve Nagy, Cleveland, Ohio.....	2065	E & B Beer, Detroit, Mich.....	3115
1953	Frank Santore, Long Island City, N. Y.....	1994	Pfeiffer Beer, Detroit.....	3181
1954	Brad Lewis, Ashland, Ohio.....	1985	Tri-Par Radio, Chicago.....	3226
1955	Fred Bujack, Detroit.....	1993	Pfeiffer Beer, Detroit.....	3136
1956	Bill Lillard, Chicago.....	2018	Falstaff Brewery, Chicago.....	3092
1957	Jim Spalding, Louisville, Ky.....	2088	Peter Hand Reserve Beer, Chicago.....	3126

WOMAN'S INTERNATIONAL BOWLING CONGRESS CHAMPIONS

Source: Emma Phaler, Secretary, Woman's International Bowling Congress, Inc.

Year	Singles	Score	Doubles	Score
1934	Marie Clemensen, Chicago.....	712	F. Trettin—D. McQuade, Chicago.....	1190
1935	Marie Warmbier, Chicago.....	652	E. Hauffer—B. Simon, San Antonio.....	1219
1936	Mrs. Ella Burmeister, Madison, Wis.....	612	Mrs. A. Lindermann—Mrs. L. Baldy, Milwaukee.....	1116
1937	Mrs. Anna Gottsline, Buffalo.....	647	L. Franke—G. Weber, Fort Wayne.....	1230
1938	Mrs. Rose Warner, Waukegan, Ill.....	622	F. Probert—E. Sablatnik, St. Louis.....	1215
1939	Helen Hengstler, Detroit.....	626	C. Powers—B. Reus, Grand Rapids.....	1130
1940	Mrs. Sally Twyford, Aurora, Ill.....	626	T. Morris—D. Burmeister Miller, Chicago.....	1181
1941	Nancy Huff, Los Angeles.....	662	J. Pittinger—M. J. Hogan, Los Angeles.....	1155
1942	Tillie Taylor, Newark, N. J.....	659	S. Hartrick—C. Allen, Detroit.....	1204
1946	Val Mikiel, Detroit.....	682	V. Focazio—P. Dusher, Niagara Falls, N. Y.....	1251
1947	Agnes Junker, Indianapolis, Ind.....	650	Candice Miller—E. Beard, Ft. Wayne, Ind.....	1245
1948	Shirlee Wernecke, Chicago.....	696	M. Cass, Alhambra—M. Mathews, Long Beach, Calif.....	1188
1949	Clara Mataya, St. Louis.....	658	Ann Elyasevich—Estelle Swoboda, Chicago.....	1229
1950	Cleo Stalkamp, Newport, Ky.....	669	Shirley Gantenbein—Flo Schick, Dallas.....	1216
1951	Ida Simpson, Buffalo, N. Y.....	639	Esther Cook—Alma Denini, Seattle.....	1179
1952	Lorene Craig, Kansas City, Mo.....	672	Lorraine Quam—Martha Hoffman, Madison, Wis.....	1206
1953	Marge Baginski, Berwyn, Ill.....	637	Doris Knechtges—Jane Grudzien, Detroit.....	1211
1954	Mrs. Helen Martin, Peoria, Ill.....	668	Frances Stennett—Rose Gacioch, Rockford, Ill.....	1244
1955	Nellie Vella, Rockford, Ill.....	695	Wyllis Ryskamp—Mrs. M. Ladewig, Grand Rapids.....	1264
1956	Lucille Noe, Columbus, Ohio.....	708	Betty Maw—Mary Quinn, Buffalo, N. Y.....	1242
1957	Eleanor Towles, Peoria, Ill.....	664	Nellie Vella—Jeannette Grzelak, Rockford, Ill.....	1218

Year	All-events	Score	Team	Score
1934	Mrs. Esther Ryan, Milwaukee.....	1763	Tommy Dolls Five, Cincinnati.....	2616
1935	Marie Warmbier, Chicago.....	1911	Alberti Jewelers, Chicago.....	2765
1936	Mrs. Ella Burmeister, Madison, Wis.....	1683	Easy Five, Cleveland.....	2617
1937	Mrs. Louise Stockdale, Detroit.....	1761	The Heil Uniform Heat, Milwaukee.....	2685
1938	Dorothy Burmeister, Chicago.....	1843	The Heil Uniform Heat, Milwaukee.....	2706
1939	Ruth Troy, Dayton, Ohio.....	1724	Kornitz Pure Oil, Milwaukee.....	2618
1940	Mrs. Tess Morris, Chicago.....	1777	Logan Square Buicks, Chicago.....	2689
1941	Mrs. Sally Twyford, Aurora, Ill.....	1799	Rovick Bowling Shoes, Chicago.....	2661
1942	Nina Van Camp, Chicago.....	1888	Logan Square Buicks, Chicago.....	2815
1946	Catherine Fellmeth, Chicago.....	1835	Silver Seal Soda, St. Louis.....	2721
1947	Marge Dardeen, Cincinnati.....	1826	Kornitz Pure Oil, Milwaukee.....	2987
1948	Virgie Hupfer, Burlington, Iowa.....	1850	Kathryn Creme Pact, Chicago.....	2812
1949	Cecelia Winandy, Chicago.....	1840	Gears by Enterprise, Detroit.....	2786
1950	Marion Ladewig, Grand Rapids, Mich.....	1796	Fanitorium Majors, Grand Rapids, Mich.....	2903
1951	LaVerne Haverley, Los Angeles.....	1788	Hickman Oldsmobile Whirlaway, Indianapolis.....	2705
1952	Mrs. Virginia Turner, Gardena, Calif.....	1854	Cole Furniture, Cleveland.....	2854
1953	Doris Knechtges, Detroit.....	1886	B. & B. Chevrolet, Detroit.....	2931
1954	Anne Johnson, Hazleton, Pa.....	1880	Marhoefer Weiners, Chicago.....	2734
1955	Mrs. Marion Ladewig, Grand Rapids, Mich.....	1890	Fallstaff, Chicago.....	2991
1956	Doris Knechtges, Detroit.....	1867	Daniel Ryan, Chicago.....	2880
1957	Anita Cantaline, Detroit.....	1859	Colonial Broch Co., Detroit.....	2881

DUCK PINS

Source: A. L. Ebersole, Executive Secretary, National Duck Pin Bowling Congress.

WORLD RECORDS (MEN)

Individual

Event and record holder	Score
Single game—Eddie Funaro, New Haven, Conn.....	239
3-game set—Arthur Lemke, Lowell, Mass.....	542
4-game set—James Deitsch, Baltimore.....	624
5-game set—Larkin Weedon, Washington.....	786
6-game set—Andy Friar, Fall River, Mass.....	914
7-game set—Howard Parsons, Washington, D. C.....	1,091
8-game set—John Hundertmark, Baltimore.....	1,199
9-game set—Mike Litrenta, Baltimore.....	1,339
10-game set—Winnie Guerke, Baltimore.....	1,482
Season average—Nick Tronsky, New Britain, Conn.....	134-14

Doubles

Single game—W. Christiano-J. Silk, Norwalk, Conn.....	352
3-game set—M. Avon-P. Jarman, Washington, D. C.....	929
4-game set—Dawson Snyder-James Rosenberger, Baltimore.....	1,122
5-game set—Andy Page-Gene Sirbaugh, Atlanta, Ga.....	1,428
6-game set—N. Hamilton-W. Guerke, Baltimore.....	1,624
7-game set—S. Witkowski, Middletown, Conn.-J. Genovesi, Rockville, Conn.....	1,938
8-game set—E. Campbell-L. Seim, Annapolis, Md.....	2,128
9-game set—N. Hamilton-W. Guerke, Baltimore.....	2,431
10-game set—J. Dietsch-J. Weinkam, Baltimore.....	2,752
Season average—H. Hipsley-J. Dietsch, Baltimore.....	254-10

Teams

Single game—Winchester Packard, Washington, D. C.....	797
3-game set—National Premium Beer, Baltimore.....	2,135
5-game set—Kelly Buick, Baltimore.....	3,348
10-game set—Park Circle Motor, Baltimore.....	6,460
15-game set—Popular Club-Recreation, Baltimore.....	9,420
Consecutive wins—Franks Tavera, Washington, D. C.....	33
Season average—National Beer, Baltimore.....	638-42
3-man game—Middletown (Conn.) All-Stars.....	475
3-man set—Huguey's Bethesda (Md.) Stars.....	1,249
3-man 5-game set—C. Hildebrand, E. Pickus, N. Hamilton, Baltimore.....	1,957

WORLD RECORDS (WOMEN)

Individual

Event and record holder	Score
Single game—Vivian Walsh, Washington.....	232
3-game set—Minerva Weisenborn, Baltimore.....	471
4-game set—Ruth Kratz, Baltimore.....	602
5-game set—Elizabeth Barger, Baltimore, Md.....	745
6-game set—Ida Simmons, Norfolk, Va., and Joan Nuessele, Baltimore (tie).....	835
7-game set—Elizabeth Barger, Baltimore.....	997
8-game set—Ethel Dize, Baltimore.....	1,057
9-game set—Maxine Allen, Durham, N. C.....	1,231
10-game set—Ida Simmons, Norfolk, Va.....	1,355
Season average—Ida Simmons Slack.....	124-15

Doubles

Single game—Hazel Wells-Ruby Hovanic, Bridgeport, Conn.....	338
3-game set—A. Levy-D. Smith, Norfolk, Va.....	798
4-game set—E. Brose-T. McDonough, Baltimore.....	966
5-game set—E. Barger-E. Dize, Baltimore.....	1,298
6-game set—I. Simmons-E. Leib, Baltimore.....	1,458
7-game set—E. Traber-M. Cleveland, Atlanta, Ga.....	1,694
8-game set—T. McDonough-E. Brose, Baltimore.....	1,905
9-game set—I. Simmons-E. Leib, Baltimore.....	2,139
10-game set—E. Barger-E. Dize, Baltimore.....	2,572
Season average—N. Zimmerman-M. Tuckey, Baltimore.....	217

Teams

Single game—Devon All-Star Girls, Devon, Conn.....	721
3-game set—Star Laundry Girls, Norwalk, Conn.....	1,965
5-game set—Pine Grove Dairy, Portsmouth, Va.....	3,094
10-game set—Evening Star Champions, Washington, D. C.....	5,438
Season average—Aristocrat Dairy, Baltimore.....	578-0
Consecutive wins—Bookies, Richmond, Va.....	37
3-woman 7-game set—I. Simmons, J. White, E. Leib, Baltimore.....	2,433

SKI JUMPING

UNITED STATES RECORDS

Source: Harold A. Grinden, Historian, National Ski Association of America, Duluth, Minn.

Year	Made by and place	Distance, in feet
1887	Mikkel Hemmestvedt, Red Wing, Minn.....	37
1904	T. Walters, Ishpeming, Mich.....	82
1905	J. Kulstadt, Ishpeming, Mich.....	92½
1907	Ole Feiring, Duluth, Minn.....	112
1907	Ole Mangseth, Red Wing, Minn.....	114
1908	John Evenson, Duluth, Minn.....	116
1908	John Mangseth, Duluth, Minn.....	117
1908	John Evenson, Ishpeming, Mich.....	122
1909	Ole Larson, Eau Claire, Wis.....	131
1910	Oscar Gunderson, Chippewa Falls, Wis.....	138
1910	August Nordby, Ishpeming, Mich.....	140
1911	Anders Haugen, Ironwood, Mich.....	152
1913	Ragnar Omtvedt, Ironwood, Mich.....	154-158-169
1916	Ragnar Omtvedt, Steamboat Springs, Colo.....	192½
1917	Henry Hall, Steamboat Springs, Colo.....	203
1919	Anders Haugen, Dillon, Colo.....	213
1919	Lars Haugen, Steamboat Springs, Colo.....	214
1920	Anders Haugen, Dillon, Colo.....	214
1932	Glen Armstrong, Salt Lake City.....	224
1934	John Elvrum, Big Pines, Calif.....	240
1937	Alf Engen, Salt Lake City, Utah.....	244.42

Year	Made by and place	Distance, in feet
1939	Alf Engen, Big Pines, Calif.....	251
1939	Bob Roecker, Iron Mountain, Mich.....	257
1941	Torger Tøkle, Leavenworth, Wash.....	273
1941	Torger Tøkle, Olympian Hill, Hyak, Wash.....	288
1942	Torger Tøkle, Iron Mountain, Mich.....	289
1949	Sverre Kongsgaard, Hyak, Wash.....	290
1949	Joe Perrault, Iron Mountain, Mich.....	297
1950	Art Devlin, Steamboat Springs, Colo.....	307
1951	Ansten Samuelstuen, Steamboat Springs.....	316

U. S. RECORDS BY CLASSES

Class A—Ansten Samuelstuen, Norway, at Steamboat Springs, Colo., Feb. 18, 1951.....	316
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ATHLETES OF THE YEAR

The Associated Press annually polls outstanding sportswriters and broadcasters throughout the nation to select the outstanding male and female athletes of the year. The winners since 1931:

MALE

Year	Athlete	Sport
1931	Pepper Martin	Baseball
1932	Gene Sarazen	Golf
1933	Carl Hubbell	Baseball
1934	Dizzy Dean	Baseball
1935	Joe Louis	Boxing
1936	Jesse Owens	Track and field
1937	Don Budge	Tennis
1938	Don Budge	Tennis
1939	Nile Kinnick	Football
1940	Tommy Harmon	Football
1941	Joe DiMaggio	Baseball
1942	Frank Sinkwich	Football
1943	Gunder Hagg	Track
1944	Byron Nelson	Golf
1945	Byron Nelson	Golf
1946	Glenn Davis	Football
1947	Johnny Lujack	Football
1948	Lou Boudreau	Baseball
1949	Leon Hart	Football
1950	Jim Konstanty	Baseball
1951	Dick Kazmaier	Football
1952	Bob Mathias	Track and field
1953	Ben Hogan	Golf
1954	Willie Mays	Baseball
1955	Howard (Hopalong) Cassady	Football
1956	Mickey Mantle	Baseball
1957	Ted Williams	Baseball

FEMALE

Year	Athlete	Sport
1931	Helene Madison	Swimming
1932	Mildred (Babe) Didrikson	Track and field
1933	Helen Jacobs	Tennis
1934	Virginia Van Wie	Golf
1935	Helen Wills Moody	Tennis
1936	Helen Stephens	Track
1937	Katherine Rawls	Swimming
1938	Patty Berg	Golf
1939	Alice Marble	Tennis
1940	Alice Marble	Tennis
1941	Betty Hicks Newell	Golf
1942	Gloria Callen	Swimming
1943	Patty Berg	Golf
1944	Ann Curtis	Swimming
1945	Mildred (Babe) Didrikson Zaharias	Golf
1946	Mildred (Babe) Didrikson Zaharias	Golf
1947	Mildred (Babe) Didrikson Zaharias	Golf
1948	Fanny Blankers-Koen	Track
1949	Marlene Bauer	Golf
1950	Mildred (Babe) Didrikson Zaharias	Golf
1951	Maureen Connolly	Tennis
1952	Maureen Connolly	Tennis
1953	Maureen Connolly	Tennis
1954	Mildred (Babe) Didrikson Zaharias	Golf
1955	Patty Berg	Golf
1956	Patricia McCormick	Diving
1957	Althea Gibson	Tennis

SULLIVAN AWARD WINNERS

The James E. Sullivan Memorial Award is given annually to the amateur athlete voted by sports leaders as having done the most to advance sportsmanship.

Year	Winner	Sport
1930	Robert T. Jones, Jr.	Golf
1931	Bernard E. Berlinger	Track and field
1932	James A. Bausch	Track and field
1933	Glenn Cunningham	Running
1934	William R. Bonthron	Running
1935	W. Lawson Little, Jr.	Golf
1936	Glenn Morris	Track and field
1937	J. Donald Budge	Tennis
1938	Donald R. Lash	Running
1939	Joseph W. Burk	Rowing
1940	J. Gregory Rice	Running
1941	Leslie MacMitchell	Running
1942	Cornelius Warmerdam	Pole vaulting
1943	Gilbert L. Dodds	Running
1944	Ann Curtis	Swimming
1945	Felix (Doc) Blanchard	Football
1946	Y. Arnold Tucker	Football
1947	John B. Kelly, Jr.	Rowing
1948	Robert B. Mathias	Track and field
1949	Richard T. Button	Figure skating
1950	Fred Wilt	Running
1951	Robert E. Richards	Track and field
1952	Horace Ashenfelter	Running
1953	Major Sammy Lee	Diving
1954	Malvin Whitfield	Running
1955	Harrison Dillard	Running
1956	Patricia McCormick	Diving
1957	Bobby Morrow	Running

HICKOK AWARD WINNERS

The richest award in sports is the \$10,000 S. Rae Hickok Belt, which annually goes to the professional athlete of the year, as selected in a poll of sportswriters and sportscasters throughout the country. The winners:

1950	Phil Rizzuto	Baseball
1951	Allie Reynolds	Baseball
1952	Rocky Marciano	Boxing
1953	Ben Hogan	Golf
1954	Willie Mays	Baseball
1955	Otto Graham	Football
1956	Mickey Mantle	Baseball
1957	Carmen Basilio	Boxing

TOP ATHLETES OF A HALF-CENTURY

In 1950 The Associated Press polled the nation's sports experts on the "greats" in various fields during the past half-century. The list of winners:

Male athlete—Jim Thorpe.
 Female athlete—Mildred D. Zaharias.
 Baseball player—Babe Ruth.
 Football player—Jim Thorpe.
 Fighter—Jack Dempsey.
 Basketball player—George Mikan.
 Track performer—Jesse Owens.
 Golfer—Bobby Jones.
 Tennis player—Bill Tilden.
 Swimmer—Johnny Weissmuller.
 Race horse—Man o' War.

BASKETBALL

BASKETBALL may be unique in sports. It is one game concerning which it is safe to state when, where and how it originated. In the winter of 1891-92, Dr. James Naismith, an instructor in the Y.M.C.A. Training College (now Springfield College) at Springfield, Mass., deliberately invented the game of basketball in order to provide indoor exercise and competition for the students during the closing of the football season and the opening of the baseball season. He affixed peach baskets overhead on the walls at opposite ends of the gymnasium and, with an association (soccer) football, organized teams to play his new game in which the purpose was to toss the ball into one basket and prevent, as far as possible, the opponents from tossing the ball into the other basket. Fun-

damentally, the game is the same today, though there have been some improvements in equipment and many changes in the rules.

Because Dr. Naismith had eighteen available players when he invented the game, the first rule was: "There shall be nine players on each side." Later the number of players became optional, depending upon the size of the available court, but the five-player standard was adopted when the game spread over the country. United States soldiers introduced the game in Europe in World War I and, being taken up by foreign nations, it soon became a world-wide sport. An odd point is that, though it is still chiefly an indoor game in the United States, in other countries it flourishes almost entirely outdoors.

National Collegiate A. A. Champions

1939—Oregon	1949—Kentucky
1940—Indiana	1950—C.C.N.Y.
1941—Wisconsin	1951—Kentucky
1942—Stanford	1952—Kansas
1943—Wyoming	1953—Indiana
1944—Utah	1954—La Salle
1945—Oklahoma A & M	1955—San Francisco
1946—Oklahoma A & M	1956—San Francisco
1947—Holy Cross	1957—North Carolina
1948—Kentucky	

National Invitation Champions

(Madison Square Garden Tourney)

1938—Temple	1948—St. Louis
1939—Long Island U.	1949—San Francisco
1940—Colorado	1950—C.C.N.Y.
1941—Long Island U.	1951—Brigham Young
1942—West Virginia	1952—La Salle (Phila.)
1943—St. John's (Bklyn.)	1953—Seton Hall
1944—St. John's (Bklyn.)	1954—Holy Cross
1945—DePaul	1955—Duquesne
1946—Kentucky	1956—Louisville
1947—Utah	1957—Bradley

National A. A. U. Champions

1897—23d St. Y.M.C.A., New York
 1899-1900—Knickerbocker A. C., New York
 1901—Ravenswood Y.M.C.A., Chicago
 1904—Buffalo (N. Y.) Y.M.C.A.
 1910—Portage, Wis. National Guard
 1913-14—Cornell (Armour Playground), Chicago
 1915—San Francisco Olympic Club
 1916—University of Utah
 1917—Illinois A. C.
 1919—Los Angeles A. C.
 1920—New York University
 1921—Kansas City A. C.
 1922—Lowe and Campbell, Kansas City
 1923—Kansas City A. C.
 1924—Butler University
 1925—Washburn College
 1926-27—Hillyards, St. Joseph, Mo.
 1928-29—Cook Paint Co., Kansas City

1930-32—Henry Clothiers, Wichita, Kan.
 1933-34—Diamond DX Oilers, Tulsa, Okla.
 1935—So. Kansas Stage Lines, Kansas City
 1936—Globe Refiners, McPherson, Kan.
 1937—Denver (Colo.) Safeways
 1938—Healey Motors, Kansas City
 1939—Denver (Colo.) Nuggets
 1940—Phillips Oilers, Bartlesville, Okla.
 1941—20th Century-Fox, Hollywood, Calif.
 1942—American Legion, Denver, Colo.
 1943-48—Phillips Oilers, Bartlesville, Okla.
 1949—Oakland (Calif.) Bittners
 1950—Phillips Oilers, Bartlesville, Okla.
 1951—Stewart Chevrolets, San Francisco
 1952-54—Caterpillar Diesels, Peoria, Ill.
 1955—Phillips Oilers, Bartlesville, Okla.
 1956—Buchan Bakers, Seattle
 1957—U. S. Air Force

Professional Champions

The National Basketball Association (N.B.A.) was created in 1949 by a merger of the National Basketball League and the Basketball Association of America. Champions follow:

National League

1938—Goodyears	1946—Rochester
1939-40—Firestones	1947—Chicago
1941-42—Oshkosh	1948—Minneapolis
1943-45—Fort Wayne	1949—Anderson

Association of America

1947—Philadelphia	1949—Minneapolis
1948—Baltimore	

National Association (NBA)

1950—Minneapolis
1951—Rochester
1952—Minneapolis
1953—Minneapolis
1954—Minneapolis
1955—Syracuse
1956—Philadelphia
1957—Boston

ROWING

ROWING goes back so far in history that there is no possibility of tracing it to any particular aboriginal source. The oldest rowing race still on the calendar is the "Doggett's Coat and Badge" contest among professional watermen of the Thames (England) that began in 1715. The first Oxford-Cambridge race was held at Henley in 1829. Competitive rowing in the United States began with matches between boats rowed by professional oarsmen of the New York water front. They were oarsmen who rowed the small boats that plied as ferries from Manhattan Island to Brooklyn and return, or who rowed salesmen down the harbor to meet ships arriving from Europe. Since the first salesman to meet an incoming ship had some advantage over his rivals, there was keen competition in the bidding for fast boats and the best oarsmen. This gave rise to match races for a purse or a side bet on many occasions. The first of such races was held in June, 1811, in four-oared gigs.

Amateur boat clubs sprang up in the United States between 1820 and 1830 and

seven students of Yale joined together to purchase a four-oared lap-streak gig in 1843. The first Harvard-Yale race was held Aug. 3, 1852, on Lake Winnepesaukee, N. H. The first time an American college crew went abroad was in 1869 when Harvard challenged Oxford and was defeated on the Thames. There were early college rowing races on Lake Quinsigamond, near Worcester, Mass., and on Saratoga Lake, N. Y., but the Intercollegiate Rowing Association, in 1895, settled on the Hudson, at Poughkeepsie, as the setting for the annual "Poughkeepsie Regatta." In 1950 the I.R.A. shifted its classic to Marietta, Ohio, and in 1952 it was moved to Syracuse, N. Y. The National Association of Amateur Oarsmen, organized in 1872, has conducted annual championship regattas since that time. The first rowing races were held with lap-streak gigs but shells came into general favor about a century ago. The outrigger was invented in 1830 by Clasper, an Englishman. Yale used the sliding seat in 1870.

Rowing Statistics

Source: From *American Rowing*, Copyright by Robert F. Kelley; courtesy of G. P. Putnam's Sons.

Yale-Harvard Varsity Race Record

Rowed at Centre Harbor, N. H., in 1852; Springfield, Mass., in 1855, 1872-73, 1876-77; Worcester, Mass., 1859 to 1870; Saratoga Lake, N. Y. 1874-75; New London, Conn., 1878 to 1895, 1898 to 1916, 1919 to 1941, and since 1947; triangular race at Poughkeepsie, N. Y., in 1897 with Cornell victor in 20:34; Derby, Conn., in 1918, 1942, and Boston, Mass., in 1946. Course was 2 miles in 1852; 3 miles from 1855 to 1875, and 4 miles thereafter.

Year	Winner	Time	Year	Winner	Time	Year	Winner	Time
1852	Harvard	1	1892	Yale	20:48	1925	Yale	20:26
1855	Harvard	22:00	1893	Yale	25:01½	1926	Yale	20:14¾
1859	Harvard	19:18	1894	Yale	23:45½	1927	Harvard	22:35½
1860	Harvard	18:53	1895	Yale	21:30	1928	Yale	20:21¾
1864	Yale	19:01	1897	Yale	20:44	1929	Yale	21:20
1865	Yale	18:42½	1898	Yale	24:02	1930	Yale	20:09¾
1866	Harvard	18:43¾	1899	Harvard	20:52½	1931	Harvard	22:21
1867	Harvard	18:12¾	1900	Yale	21:12¾	1932	Harvard	21:29
1868	Harvard	17:48½	1901	Yale	23:37	1933	Harvard	22:46¾
1869	Harvard	18:02	1902	Yale	20:20	1934	Yale	19:51¾
1870	Harvard	20:30 ^a	1903	Yale	20:19¾	1935	Yale	20:19
1872	Harvard	16:57	1904	Yale	21:40½	1936	Harvard	20:19
1873	Yale	16:59	1905	Yale	22:33½	1937	Harvard	20:02
1874 ^a	Harvard	16:56	1906	Harvard	23:02	1938	Harvard	20:20
1875	Harvard	17:05	1907	Yale	21:10	1939	Harvard	20:48¾
1876	Yale	22:02	1908 ^a	Harvard	24:10	1940	Harvard	21:38
1877	Harvard	24:36	1909	Harvard	21:50	1941	Harvard	20:40
1878	Harvard	20:44¾	1910	Harvard	20:46½	1942 ^b	Harvard	10:09¾
1879	Harvard	22:15	1911	Harvard	22:44	1946 ^c	Harvard	9:18
1880	Yale	24:27	1912	Harvard	21:43½	1947	Harvard	20:40
1881	Yale	22:13	1913	Harvard	21:42	1948 ^d	Harvard	19:21¾
1882	Harvard	20:47½	1914	Yale	21:16	1949 ^e	Yale	19:52¾
1883	Harvard	25:46½	1915	Yale	20:52	1950	Harvard	21:36¾
1884	Yale	20:31	1916	Harvard	20:02	1951	Harvard	21:26
1885	Harvard	25:15½	1918 ^f	Harvard	10:58	1952	Yale	22:49
1886	Yale	20:42	1919 ^g	Yale	21:42¾	1953	Harvard	20:09
1887	Yale	22:56	1920	Harvard	23:11	1954	Yale	21:58¾
1888	Yale	20:10	1921	Yale	20:41	1955	Yale	20:05
1889	Yale	21:30	1922	Yale	21:53	1956	Yale	19:26
1890	Yale	21:29	1923	Yale	22:10	1957	Yale	20:35
1891	Harvard	21:23	1924	Yale	21:58¾			

¹ Harvard won by 3 to 4 lengths. ² Yale ran into Harvard at turn and was being disabled in collision. ³ Yale stroke taken from shell near 3-mile mark. ⁴ Race was informal; rowed at 2 on Housatonic. ⁵ Course was 110 feet less than 4 miles. ⁶ Rowed at 2 miles. ⁷ Rowed at 1½ miles. ⁸ Both crews broke downstream record. ⁹ Both crews broke upstream record.

INTERCOLLEGIATE ROWING ASSOCIATION REGATTA

(Varsity eight-oared shells)

Rowed at 4 miles, Poughkeepsie, N. Y., 1895-97, 1899-1916, 1926-32, 1934-41. Rowed at 3 miles, Saratoga, N. Y., 1898; Poughkeepsie, 1921-24, 1947-49; Syracuse, N. Y., since 1952. Rowed at 2 miles, Ithaca, N. Y., 1920; Marietta, Ohio, 1960-61. Racing suspended 1917-19, 1933, 1942-46.

Year	Time	First	Second	Third	Fourth	Fifth	Sixth
1895	21:25	Columbia	Cornell	Pennsylvania			
1896	19:59	Cornell	Harvard	Pennsylvania	Columbia		
1897	20:47 4/5	Cornell	Columbia	Pennsylvania			
1898	15:51 1/2	Pennsylvania	Cornell	Wisconsin	Columbia		
1899	20:04	Pennsylvania	Wisconsin	Cornell	Columbia		
1900	19:44 3/5	Pennsylvania	Wisconsin	Cornell	Columbia	Georgetown	
1901	18:53 1/5	Cornell	Columbia	Wisconsin	Georgetown	Syracuse	Pennsylvania
1902	19:05 3/5	Cornell	Wisconsin	Columbia	Pennsylvania	Syracuse	Georgetown
1903	18:57	Cornell	Georgetown	Wisconsin	Pennsylvania	Syracuse	Columbia
1904	20:22 3/5	Syracuse	Cornell	Pennsylvania	Columbia	Georgetown	Wisconsin
1905	20:29	Cornell	Syracuse	Georgetown	Columbia	Pennsylvania	Wisconsin
1906	19:36 4/5	Cornell	Pennsylvania	Syracuse	Wisconsin	Columbia	Georgetown
1907	20:02 2/5	Cornell	Columbia	Navy	Pennsylvania	Wisconsin	Georgetown
1908	19:24 1/5	Syracuse	Columbia	Cornell	Pennsylvania	Wisconsin	
1909	19:02	Cornell	Columbia	Syracuse	Wisconsin	Pennsylvania	
1910	20:42 1/5	Cornell	Pennsylvania	Columbia	Syracuse	Wisconsin	
1911	20:10 4/5	Cornell	Columbia	Pennsylvania	Wisconsin	Syracuse	
1912	19:31 2/5	Cornell	Wisconsin	Columbia	Syracuse	Pennsylvania	Stanford
1913	19:28 3/5	Syracuse	Cornell	Washington	Wisconsin	Columbia	Pennsylvania
1914	19:37 4/5	Columbia	Pennsylvania	Cornell	Syracuse	Washington	Wisconsin
1915	19:36 3/5	Cornell	Stanford	Syracuse	Columbia	Pennsylvania	
1916	20:15 2/5	Syracuse	Cornell	Columbia	Pennsylvania		
1920	11:02 3/5	Syracuse	Cornell	Columbia	Pennsylvania		
1921	14:07	Navy	California	Cornell	Pennsylvania	Syracuse	Columbia
1922*	13:33 3/5	Navy	Washington	Syracuse	Cornell	Columbia	Pennsylvania
1923	14:03 1/5	Washington	Navy	Columbia	Syracuse	Cornell	Pennsylvania
1924	15:02	Washington	Wisconsin	Cornell	Pennsylvania	Syracuse	Columbia
1925	19:24 4/5	Navy	Washington	Wisconsin	Pennsylvania	Cornell	Syracuse
1926	19:28 3/5	Washington	Navy	Syracuse	Pennsylvania	Columbia	California
1927	20:57	Columbia	Washington	California	Navy	Cornell	Syracuse
1928	18:35 4/5	California	Columbia	Washington	Cornell	Navy	Syracuse
1929	22:58	Columbia	Washington	Pennsylvania	Navy	Wisconsin	
1930	21:42	Cornell	Syracuse	M. I. T.	California	Columbia	Washington
1931	18:54 1/5	Navy	Cornell	Washington	California	Syracuse	Pennsylvania
1932	19:55	California	Cornell	Washington	Navy	Syracuse	Columbia
1934	19:44	California	Washington	Navy	Cornell	Pennsylvania	Syracuse
1935	18:52	California	Cornell	Washington	Navy	Syracuse	Pennsylvania
1936	19:09 3/5	Washington	California	Navy	Columbia	Cornell	Pennsylvania
1937	18:33 3/5	Washington	Navy	Cornell	Syracuse	California	Columbia
1938	18:19	Navy	California	Washington	Columbia	Wisconsin	Cornell
1939†	18:12 3/5	California	Washington	Navy	Cornell	Syracuse	Wisconsin
1940	22:42	Washington	Cornell	Syracuse	Navy	California	Columbia
1941	18:53 3/10	Washington	California	Cornell	Syracuse	Princeton	Wisconsin
1947	13:59 1/5	Navy	Cornell	Washington	California	Princeton	Syracuse
1948	14:06 2/5	Washington	California	Navy	Cornell	M. I. T.	Princeton
1949	14:42 3/5	California	Washington	Cornell	Navy	Princeton	Pennsylvania
1950	8:07.5	Washington	California	Wisconsin	Stanford	M. I. T.	Columbia
1951	7:50.5	Wisconsin	Washington	Princeton	California	Pennsylvania	M. I. T.
1952	15:08.1	Navy	Princeton	Cornell	Wisconsin	California	Columbia
1953	15:29.6	Navy	Cornell	Washington	Wisconsin	Columbia	California
1954	16:04.4	†Navy	Cornell	Washington	Wisconsin	California	Columbia
1955	15:49.9	Cornell	Pennsylvania	Navy	Washington	Stanford	California
1956	16:22.4	Cornell	Navy	Wisconsin	Washington	Stanford	Pennsylvania
1957	15:26.6	Cornell	Penn.	Stanford	Princeton	Syracuse	Navy

* Record for three miles. † Record for four miles. ‡ Disqualified.

SEVENTH—1925, Columbia; 1926, Wisconsin; 1927, Pennsylvania; 1928, Pennsylvania; 1930, Pennsylvania; 1931, Columbia; 1932, Pennsylvania; 1934, Columbia; 1935, Columbia; 1936, Syracuse; 1937, Wisconsin; 1938, Syracuse; 1939, Columbia; 1940, Wisconsin; 1941, Rutgers; 1947, Wisconsin; 1948, Pennsylvania; 1949, Wisconsin; 1950, Cornell; 1951, Stanford; 1952, Washington; 1953, Pennsylvania; 1954, Pennsylvania; 1955, Boston U.; 1956, Princeton; 1957, Dartmouth.

EIGHTH—1926, Cornell; 1930, Wisconsin; 1931, Wisconsin; 1932, M.I.T.; 1940, Princeton; 1941, M.I.T.; 1947, M.I.T.; 1948, Wisconsin; 1949, Columbia; 1950, Pennsylvania; 1951, Cornell; 1952, Stanford; 1953, Princeton; 1954, Boston U.; 1955, Princeton; 1956, Syracuse; 1957, M.I.T.

NINTH—1931, M. I. T.; 1941, Columbia; 1947, Pennsylvania; 1948, Syracuse; 1949, Syracuse; 1950, Princeton; 1951, Syracuse; 1952, Pennsylvania; 1953, Syracuse; 1954, Princeton; 1955, Wisconsin; 1956, M.I.T.; 1957, Wisconsin.

TENTH—1947, Rutgers; 1948, Columbia; 1949, Stanford; 1950, Syracuse; 1951, Boston U.; 1952, M. I. T.; 1953, M.I.T.; 1954, M.I.T.; 1955, M.I.T.; 1956, California; 1957, Columbia.

ELEVENTH—1947, Columbia; 1948, Rutgers; 1949, M. I. T.; 1950, Rutgers; 1951, Columbia; 1952, Syracuse; 1953, Stanford; 1954, Syracuse; 1955, Columbia; 1956, Boston U.

SWAMPED—1895, Pennsylvania; 1897, Pennsylvania; 1907, Syracuse; 1929, M. I. T., Syracuse, California, Cornell; 1930, Navy.

MOTORBOATING

SINCE the source of power—the internal combustion engine—is the same in the motorboat as it is in the automobile, the history of motorboat racing parallels that of auto racing. There was a sporting risk in driving the early power boats. As soon as they began to show a degree of dependability, there came the informal rivalries of the rivers and lakes. These led to the formal contests of speed and endurance

over marked courses under the control of the American Power Boat Association. The races were severe tests of all parts of power boats and what was learned in the annual Gold Cup competition, which started in 1904, caused a great improvement in the designing of engines and hulls. The development of the outboard motor opened up another branch of power boat competition of wide popularity.

Motorboating Statistics

Source: Bernadette M. Harper, Executive Secretary, American Power Boat Association.

GOLD CUP WINNERS

Beginning with 1922 the race for the American Power Boat Association Gold Cup was open only to displacement boats of over 25 feet in length and powered with motors of not more than 625 inches piston displacement. In 1946 the rules were liberalized to encourage the entry of smaller, less expensive craft. Boats now are required to be between 19 and 40 feet in length, with horsepower unlimited.

Year	Winner and owner	Best heat m.p.h.	Year	Winner and owner	Best heat m.p.
1904—STANDARD, C. C. Riette.....		23.6	1929—IMP, R. F. Hoyt.....		50.4
1904—VINGT-ET-UN II, W. Sharpe Kilmer.....		25.3	1930—HOTSY TOTSY, V. Kliesrath.....		56.0
1905—CHIP, J. Wainwright.....		15.9	1931—HOTSY TOTSY, V. Kliesrath-R. Hoyt.....		54.9
1906—CHIP II, J. Wainwright.....		20.6	1932—DELPHINE IV, Horace E. Dodge.....		59.2
1907—CHIP II, J. Wainwright.....		20.8	1933—EL LAGARTO, G. Reis.....		60.8
1908—DIXIE II, E. J. Schroeder.....		30.9	1934—EL LAGARTO, G. Reis.....		58.0
1909—DIXIE II, E. J. Schroeder.....		32.9	1935—EL LAGARTO, G. Reis.....		57.5
1910—DIXIE III, F. K. Burnham.....		33.6	1936—IMPSHI, Horace E. Dodge.....		47.1
1911—MIT II, J. H. Hayden.....		36.1	1937—NOTRE DAME, Herbert Mendelson.....		68.6
1912—P. D. Q. II, Alfred G. Miles.....		44.5	1938—ALAGI, Theo Rossi.....		66.0
1913—ANKLE DEEP, C. S. Mankowski.....		50.49	1939—MY SIN, Z. G. Simmons Jr.....		67.0
1914—BABY SPEED DEMON II, Paula Blackton.....		48.5	1940—HOTSY TOTSY III, Sidney Allen.....		51.3
1915—MISS DETROIT, Miss Detroit P. B. A.....		49.7	1941—MY SIN, Z. G. Simmons Jr.....		52.5
1916—MISS MINNEAPOLIS, Miss Minneapolis B. A.....		36.8	1946—TEMPO VI, Guy Lombardo.....		70.8
1917—MISS DETROIT II, Gar Wood.....		56.5	1947—MISS PEPsi V, Dossin Brothers.....		57.0
1918—MISS DETROIT III, Detroit Yachtsmen.....		52.1	1948—MISS GREAT LAKES, Albin Fallon.....		52.8
1919—MISS DETROIT III, Gar Wood.....		56.3	1949—MY SWEETIE, E. Gregory-E. Schoenherr.....		78.6
1920—MISS AMERICA, Gar Wood.....		70.0	1950—SLO-MO-SHUN IV, Stanley S. Sayres.....		80.8
1921—MISS AMERICA, Gar Wood.....		56.5	1951—SLO-MO-SHUN V, Stanley S. Sayres.....		91.7
1922—PACKARD-CHRISRAFT, J. G. Vincent.....		40.6	1952—SLO-MO-SHUN IV, Stanley S. Sayres.....		84.3
1923—PACKARD-CHRISRAFT, J. G. Vincent.....		44.4	1953—SLO-MO-SHUN IV, Stanley S. Sayres.....		95.5
1924—BABY BOOTLEGGGER, Caleb Bragg.....		46.4	1954—SLO-MO-SHUN V, Stanley S. Sayres.....		99.7
1925—BABY BOOTLEGGGER, Caleb Bragg.....		48.4	1955—GALE V, Joseph Schoenith.....		100.9
1926—GREENWICH FOLLY, G. H. Townsend.....		49.22	1956—MISS THRIFTWAY, Willard Rhodes.....		100.9
1927—GREENWICH FOLLY, G. H. Townsend.....		50.99	1957—MISS THRIFTWAY, Willard Rhodes.....		104.4

HARMSWORTH TROPHY WINNERS

Year	Boat and Country	Speed*	Year	Boat and Country	Speed
1903—NAPIER I, France.....		19.53	1921—MISS AMERICA II, United States.....		59.1
1904—TREFLE-A-QUATRE, England.....		26.63	1926—MISS AMERICA V, United States.....		61.1
1905—NAPIER II, England.....		26.03	1928—MISS AMERICA VII, United States.....		59.1
1906—YARROW-NAPIER, England.....		15.48	1929—MISS AMERICA VIII, United States.....		75.1
1907—DIXIE I, United States.....		31.78	1930—MISS AMERICA IX, United States.....		77.1
1908—DIXIE II, United States.....		31.347	1931—MISS AMERICA VIII, United States.....		85.1
1910—DIXIE III, United States.....		36.04	1932—MISS AMERICA X, United States.....		78.1
1911—DIXIE IV, United States.....		40.28	1933—MISS AMERICA X, United States.....		86.1
1912—†MAPLE LEAF IV, England.....		43.18	1949—SKIP-A-LONG, United States.....		94.1
1913—MAPLE LEAF IV, England.....		57.45	1950—SLO-MO-SHUN IV, United States.....		100.1
1920—MISS AMERICA I, United States.....		61.51	1956—SHANTY I, United States.....		94.1

* In statute miles per hour.

† First of hydroplanes to win, predecessors being all displacement craft.

YACHTING

JASON sailed in search of the Golden Fleece. Cleopatra (according to Shakespeare) had a royal barge with purple sails. Columbus had three sailing ships when he crossed the Atlantic westward in 1492. But who the first sailor was and where he launched his primitive craft nobody ever will know. The word "yacht" is of Dutch origin and the first "yacht race" of record in the English language was a sailing contest from Greenwich to Gravesend and return in 1662 between a Dutch yacht designed and, at some part of the race, sailed by Charles II of England. The royal yacht won the contest.

The first yacht club was organized at Cork, Ireland, in 1720 under the name of the Cork Harbour Water Club, later changed to the Royal Cork Yacht Club. The Royal Yacht Squadron was organized

at Cowes in 1812 and the name changed to the Royal Yacht Club in 1820. The New York Yacht Club was organized aboard the Stevens schooner "Gimcrack" on July 30, 1844, and a clubhouse erected at Elysian Fields, Hoboken, N. J., the following year.

From that time until the Civil War races were held over courses starting from the water off the yacht club promontory. One course was to the Sandy Hook Lightship and return.

In 1850 the celebrated "America" was built by a group of New York yachtsmen and sent abroad to compete at Cowes. In a race around the Isle of Wight, with a special cup as a prize, the "America" defeated fourteen English boats and brought back the trophy that has been raced for as "The America's Cup" in many international yacht races since that time.

AMERICA'S CUP RECORD

First race in 1851 around Isle of Wight, Cowes, England. First defense and all others through 1920 held 30 miles off New York Bay. Races from 1930 through 1937 held 30 miles off Newport, R. I. Conducted as one race only in 1851 and 1870; best four-of-seven basis, 1871; best two-of-three, 1876-1887; best three-of-five, 1893-1901; best four-of-seven, 1930-1937. Figures in parentheses indicate number of races won.

Year	Winner and owner	Loser and owner
1851	AMERICA (1), John C. Stevens, U. S.....	*AURORA, T. Le Marchant, England
1870	MAGIC (1), Franklin Osgood, U. S.....	†CAMBRIA, James Ashbury, England
1871	‡COLUMBIA (2), Franklin Osgood, U. S.....	LIVONIA (1), James Ashbury, England
	SAPPHO (2), William P. Douglas, U. S.....	
1876	MADEIRA (2), John S. Dickerson, U. S.....	COUNTRESS OF DUFFERIN, Chas. Gifford, Canada
1881	MISCHIEF (2), J. R. Busk, U. S.....	ATALANTA, Alexander Cuthbert, Canada
1885	PURITAN (2), J. M. Forbes-Gen. Charles Paine, U. S.....	GENESTA, Sir Richard Sutton, England
1886	MAYFLOWER (2), Gen. Charles Paine, U. S.....	GALATEA, Lt. William Henn, England
1887	VOLUNTEER (2), Gen. Charles Paine, U. S.....	THISTLE, James Bell et al, Scotland
1893	VIGILANT (3), C. Oliver Iselin et al, U. S.....	VALKYRIE II, Lord Dunraven, England
1895	DEFENDER (3), C. O. Iselin-W. K. Vanderbilt-E. D. Morgan, U. S.....	VALKYRIE III, Lord Dunraven-Lord Lonsdale-Lord Wolverton, England
1899	COLUMBIA (3), J. P. Morgan-C. O. Iselin, U. S.....	SHAMROCK I, Sir Thomas Lipton, Ireland
1901	COLUMBIA (3), Edwin D. Morgan, U. S.....	SHAMROCK II, Sir Thomas Lipton, Ireland
1903	RELIANCE (3), Cornelius Vanderbilt et al, U. S.....	SHAMROCK III, Sir Thomas Lipton, Ireland
1920	RESOLUTE (3), Henry Walters et al, U. S.....	SHAMROCK IV (2), Sir Thomas Lipton, Ireland
1930	ENTERPRISE (4), Harold S. Vanderbilt et al, U. S.....	SHAMROCK V, Sir Thomas Lipton, Ireland
1934	RAINBOW (4), Harold S. Vanderbilt, U. S.....	ENDEAVOUR (2), T. O. M. Sopwith, England
1937	RANGER (4), Harold S. Vanderbilt, U. S.....	ENDEAVOUR II, T. O. M. Sopwith, England

* Fourteen British yachts started against America; Aurora finished second. † Cambria sailed against 23 U. S. yachts and finished tenth. ‡ Columbia was disabled in the third race, after winning the first two; Sappho substituted and won the fourth and fifth.

COURT TENNIS

Source: Allison Danzig, *The New York Times*.

National Champions

1892	Richard D. Sears, Boston A. A.	1930	Lord Aberdare, England
1893	Fiske Warren, Boston A. A.	1931-32	William C. Wright, Philadelphia
1894-95	B. Spalding de Garmendia, R. and T. Club	1933	James H. Van Alen, R. and T. Club
1896	Lawrence M. Stockton, Boston A. A.	1934-37	Ogden Phipps, R. and T. Club
1897	George R. Fearing, Jr., Boston A. A.	1938	James H. Van Alen, R. and T. Club
1898-99	Lawrence M. Stockton, Boston A. A.	1939	Ogden Phipps, R. and T. Club
1900	Eustace H. Miles, England	1940	James H. Van Alen, R. and T. Club
1901-04	Joshua Crane, Boston A. A.	1941	Alastair B. Martin, R. and T. Club
1905	Charles E. Sands, R. and T. Club	1942-45	No tournaments
1906-17	Jay Gould, Philadelphia R. C.	1946	Robert Grant, III, R. and T. Club
1918-19	No tournaments	1947	E. M. Beals, Jr., Boston
1920-25	Jay Gould, Philadelphia R. C.	1948-49	Ogden Phipps, Roslyn, N. Y.
1926	C. Suydam Cutting, R. and T. Club	1950-56	Alastair B. Martin, R. and T. Club
1927	George Hubbard, England, and Chicago R. C.	1957	Northrup Knox, Buffalo
1928-29	Hewitt Morgan, R. and T. Club		

SQUASH RACQUETS

National Singles Champions

1907-08.....	John A. Miskey, Overbrook G. C.	1933.....	Beekman Pool, Harvard Club, New York
1909.....	W. L. Freeland, Germantown C. C.	1934.....	Neil J. Sullivan, Germantown C. C.
1910.....	John A. Miskey, Overbrook G. C.	1935.....	Donald Strachan, Philadelphia C. C.
1911.....	F. S. White, Germantown C. C.	1936.....	Germain G. Glidden, Harvard University
1912.....	Constantine Hutchins, Boston A. A.	1937-38.....	Germain G. Glidden, Harvard Club, New York
1913.....	Mortimer L. Newhall, Germantown C. C.	1939.....	Donald Strachan, Merion C. C.
1914.....	Constantine Hutchins, Boston T. and R. Club	1940.....	A. Willing Patterson, Philadelphia R. C.
1915-17.....	Stanley W. Pearson, Germantown C. C.	1941-42.....	Charles W. Brinton, Princeton University
1918-19.....	No tournaments	1943-45.....	No tournaments
1920.....	Charles C. Peabody, Union B. C., Boston	1946-47.....	Charles W. Brinton, Philadelphia
1921-23.....	Stanley W. Pearson, Philadelphia R. C.	1948.....	Stanley W. Pearson, Jr., Philadelphia
1924.....	Gerald Roberts, Bath Club, London	1949.....	Hunter H. Lott, Jr., Merion C. C.
1925.....	W. Palmer Dixon, Harvard University	1950-51.....	Edward Hahn, Detroit
1926.....	W. Palmer Dixon, R. and T. Club, N. Y.	1952.....	Harry Conlon, Buffalo, N. Y.
1927.....	Myles P. Baker, Boston A. A.	1953.....	Ernie Howard, Toronto
1928.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.	1954.....	G. Diehl Mateer, Jr., Philadelphia
1929.....	J. Lawrence Pool, Harvard Club, New York	1955.....	Henri Salaun, Boston
1930.....	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.	1956.....	G. Diehl Mateer, Jr., Philadelphia
1931.....	J. Lawrence Pool, Harvard Club, New York	1957.....	Henri Salaun, Boston
1932.....	Beekman Pool, Harvard University		

SQUASH TENNIS

National Champions

Year	Winner and Club	Year	Winner and Club
1911-12.....	Alfred Stillman, Harvard	1938.....	Harry F. Wolf, Montclair
1913.....	George Whitney, Harvard	1939-40.....	Harry F. Wolf, New York A. C.
1914.....	Alfred Stillman, Harvard	1941.....	Joseph J. Lordi, New York A. C.
1915-17.....	Eric S. Winston, Harvard	1942.....	H. Robert Reeve, Bayside T. C.
1918.....	Fillmore Van S. Hyde, Harvard	1943-45.....	No tournaments
1919.....	John W. Appel, Jr., Harvard	1946.....	Frank R. Hanson, Columbia
1920.....	Auguste J. Cordier, Yale	1947.....	Frederick B. Ryan, Jr., Yale
1921.....	Fillmore Van S. Hyde, Harvard	1948-49.....	H. Robert Reeve, Bayside T. C.
1922.....	Thomas R. Coward, Yale	1950.....	H. Robert Reeve, Nassau C. C.
1923.....	R. Earl Fink, Crescent	1951.....	J. T. P. Sullivan, Yale
1924.....	Fillmore Van S. Hyde, Harvard	1952.....	H. Robert Reeve, New York A. C.
1925.....	William Rand, Jr., Harvard	1953.....	Howard J. Rose, Princeton Club
1926.....	Fillmore Van S. Hyde, Harvard	1954-55.....	H. Robert Reeve, Bayside T. C.
1927-29.....	Rowland B. Haines, Columbia	1956.....	H. Robert Reeve, New York A. C.
1930-37.....	Harry F. Wolf, New York A. C.	1957.....	James L. Porter, New York

RACQUETS

National Champions

1890	B. Spalding de Garmendia, N. Y. Racquet Court	1918-19	No tournaments
1891	B. Spalding de Garmendia, R. and T. Club	1920-22	C. C. Pell, R. and T. Club and Tuxedo
1892	J. S. Tooker, R. and T. Club, Boston A. A.	1923	S. G. Mortimer, R. and T. Club and Tuxedo
1893-94	B. Spalding de Garmendia, R. and T. Club	1924-25	C. C. Pell, R. and T. Club and Tuxedo
1895	J. S. Tooker, R. and T. Club, Boston A. A.	1926	S. G. Mortimer, R. and T. Club and Tuxedo
1896-97	B. Spalding de Garmendia, R. and T. Club	1927-28	C. C. Pell, R. and T. Club and Tuxedo
1898	F. F. Rolland, Canada	1929	H. D. Sheldon, R. and T. Club
1899	Quincy A. Shaw, Jr., Boston A. A.	1930	S. G. Mortimer, R. and T. Club and Tuxedo
1900	Eustace H. Miles, England	1931-33	C. C. Pell, R. and T. Club and Tuxedo
1901	Quincy A. Shaw, Jr., Boston A. A.	1934	E. M. Edwards, Philadelphia R. C.
1902	Clarence H. Mackay, R. and T. Club	1935	H. D. Sheldon, R. and T. Club
1903	Payne Whitney, R. and T. Club	1936	E. M. Edwards, Philadelphia R. C.
1904	George H. Brooke, Philadelphia R. C.	1937-39	Robert Grant, III, R. and T. Club
1905	Lawrence Waterbury, R. and T. Club	1940	Warren Ingersoll, III, Philadelphia R. C.
1906	Percy D. Houghton, R. and T. Club	1941	Robert Grant, III, R. and T. Club
1907	Reginald Fincke, R. and T. Club	1942-45	No tournaments
1908	Quincy A. Shaw, Jr., Boston T. and R. Club	1946	Robert Grant, III, R. and T. Club
1909	H. F. McCormick, University Club, Chicago	1947	J. Richards Leonard, R. and T. Club
1910	Quincy A. Shaw, Jr., Boston T. and R. Club	1948-51	Robert Grant, III, R. and T. Club
1911-12	Reginald Fincke, R. and T. Club	1952	S. W. Pearson, Jr., Philadelphia R. C.
1913-14	Lawrence Waterbury, R. and T. Club	1953	Robert Grant, III, R. and T. Club
1915	C. C. Pell, R. and T. Club and Tuxedo	1954-56	Geoffrey W. T. Atkins, Chicago
1916	S. G. Mortimer, R. and T. Club and Tuxedo	1957	Charles Pearson, Philadelphia
1917	C. C. Pell, R. and T. Club and Tuxedo		

BADMINTON

United States Champions

MEN'S SINGLES

- 1937-38 Walter Kramer, Detroit
 1939-42 David Freeman, Pasadena, Calif.
 1943-46 No competition.
 1947-48 David Freeman, Pasadena, Calif.
 1949-50 Marten Mendez, San Diego, Calif.
 1951 Joseph Alston, San Diego, Calif.
 1952 Marten Mendez, San Diego, Calif.
 1953 David Freeman, Pasadena, Calif.
 1954 Eddy Choong, Malaya
 1955 Joseph Alston, So. Pasadena, Calif.
 1956-57 Finn Kobbero, Denmark

MEN'S DOUBLES

- 1937 Chester Gross-Donald Eversoll, Los Angeles
 1938-39 Hamilton Law-Richard Yeager, Seattle
 1940-42 Chester Gross-David Freeman, Pasadena, Calif.
 1943-46 No competition.
 1947 David Freeman-Webster Kimball, Pasadena, Calif.
 1948 David Freeman, Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1949-50 Barney McCay, Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1951-53 Joseph Alston, San Diego, Calif.-Wynn Rogers, Arcadia, Calif.
 1954 Ooi Teik Hock-Ong Poh Lim, Malaya
 1955 Joseph Alston, So. Pasadena, Calif.-Wynn Rogers, Arcadia, Calif.
 1956-57 Finn Kobbero-Jorgen Hansen, Denmark

WOMEN'S SINGLES

- 1937-38 Mrs. Del Barkhuff, Seattle
 1939 Mary Whittemore, Boston
 1940 Evelyn Boldrick, San Diego, Calif.
 1941 Thelma Kingsbury, Oakland, Calif.
 1942 Evelyn Boldrick, San Diego, Calif.
 1943-46 No competition.
 1947-53 Ethel Marshall, Buffalo, N. Y.
 1954 Judith Devlin, Baltimore
 1955 Margaret Varner, Boston
 1956-57 Judith Devlin, Baltimore

WOMEN'S DOUBLES

- 1937 Mrs. Del Barkhuff-Zoe Smith, Seattle
 1938 Mrs. Roy Bergman-Helen Gibson, Westport, Conn.
 1939 Mrs. Del Barkhuff-Zoe Smith, Seattle
 1940 Elizabeth Anselm-Helen Zabriskie, Oakland, Calif.
 1941 Thelma Kingsbury-Janet Wright, Oakland, Calif.
 1942 Evelyn Boldrick, San Diego, Calif.-Janet Wright, Oakland, Calif.
 1943-46 No competition.
 1947-50 Thelma K. Scovil-Janet Wright, San Francisco
 1951 Dottie Hann, Manhattan Beach, Calif.-Loma Smith, Pasadena, Calif.
 1952 Ethel Marshall-Beatrice Massman, Buffalo, N. Y.
 1953-55 Judith Devlin-Susan Devlin, Baltimore
 1956 Ethel Marshall-Beatrice Massman, Buffalo, N. Y.
 1957 Judith Devlin-Susan Devlin, Baltimore

TABLE TENNIS

United States Champions

MEN'S SINGLES

- 1931 Marcus Schussheim, New York
 1932 Coleman Clark, Chicago*
 Marcus Schussheim, New York*
 1933 James M. Jacobson, New Rochelle, N. Y.*
 Sidney Heitner, New York*
 1934 James McClure, Indianapolis*
 Sol Schiff, New York*
 1935 A. Berenbaum, New York
 1936 Viktor Barna, Hungary†
 Sol Schiff, New York†
 1937 Laszlo Bellak, Hungary†
 1938 Laszlo Bellak, Hungary
 1939 James McClure, Indianapolis
 1940-42 Louis Pagliaro, New York
 1943 William Holzrichter, Chicago
 1944 John Somael, New York
 1945-49 Richard Miles, New York
 1950 John Leach, England
 1951 Richard Miles, New York
 1952 Louis Pagliaro, New York
 1953-55 Richard Miles, New York
 1956 Erwin Klein, Los Angeles
 1957 Bernard Bukiet, Cleveland

MEN'S DOUBLES

- 1932 James M. Jacobson-George T. Bacon, Jr., New Rochelle.

* Co-champions. At the time there were two national associations, each with its own champion. † Open championships. ‡ Closed championships.

College Rodeo Laurels to McNeese

McNeese State captured the 1958 National Intercollegiate Rodeo Association team championship in competition at

Colorado Springs. Doyle McSpaden of Texas A. & M. won individual laurels as all-around cowboy.

POLO

POLO originated "somewhere east of Suez" but exactly where never has been determined. There is pictorial proof that it was played many centuries ago in Persia, Japan, China and Tibet, but it reached England by way of a border tribe in India known as the Manipuri. British army officers in India, about 1860, found the Manipuri playing polo and learned the game from them. The fact that the Manipuri used small native horses—they had no others—was the reason for the early height limit (14 hands) on polo mounts, from which arose the custom of calling them "polo ponies," which was abandoned in 1919.

In 1869 some officers of the 10th Hussars, returning from India, introduced the game in England and informal games were played with as many as eight players on a side. Formal competition at Hurlingham, the great shrine of the game, began in 1876 with five players on a side, which

number was cut to four in 1882. In 1884 an outstanding English player by the name of John Watson invented the backhand stroke and much improved the tactics of the game.

James Gordon Bennett, Jr., noted American newspaper owner and editor, saw polo at Hurlingham in 1875, brought the implements to this country, had a carload of cow ponies sent up from Texas and promoted a game that was played indoors at the Dickel Riding Academy at Fifth Avenue and 39th Street, New York City, in 1876. Polo moved outdoors to the Jerome Park race course and other suitable places soon after. One field on which it was played, at Fifth Avenue and 110th Street, was taken over by the New York baseball team in the National League and that is why the field on which the "Giants" played ball, although there had been two changes in site, still is called "the Polo Grounds."

INTERNATIONAL MATCHES

Great Britain vs. United States

Year	Winner	Site
1886	Great Britain	Newport, R. I.
1902	Great Britain	Hurlingham
1909	United States	Hurlingham
1911	United States	Meadow Brook
1913	United States	Meadow Brook
1914	Great Britain	Meadow Brook
1921	United States	Hurlingham
1924	United States	Meadow Brook
1927	United States	Meadow Brook

Year	Winner	Site
1930	United States	Meadow Brook
1936	United States	Hurlingham
1939	United States	Meadow Brook

Argentina vs. United States

Year	Winner	Site
1928	United States	Meadow Brook
1932	United States	Buenos Aires
1936	Argentina	Meadow Brook
1950	Argentina	Buenos Aires

NATIONAL OPEN CHAMPIONS

Not held from 1905 to 1909, inclusive; 1911, 1915, 1917, 1918, and from 1942 to 1945, inclusive.

1904—WANDERERS

- 1—C. R. Snowden
- 2—J. E. Cowdin
- 3—J. M. Waterbury, Jr.
- Back—L. Waterbury

1910—RANELAGH

- 1—R. N. Grenfell
- 2—F. Grenfell
- 3—Earl of Rocksavage
- Back—F. A. Gill

1912—COOPERSTOWN

- 1—F. S. von Stade
- 2—C. C. Rumsey
- 3—C. P. Beadleston
- Back—M. Stevenson

1913—COOPERSTOWN

- 1—F. S. von Stade
- 2—C. C. Rumsey
- 3—C. P. Beadleston
- Back—M. Stevenson

1914—MEADOW BROOK

- 1—N. L. Tilney
- 2—J. W. Webb
- 3—W. G. Loew
- Back—H. Phipps

1916—MEADOW BROOK

- 1—H. Phipps
- 2—C. C. Rumsey
- 3—W. G. Loew
- Back—D. Milburn

1919—MEADOW BROOK

- 1—F. H. Prince, Jr.
- 2—J. W. Webb
- 3—F. S. von Stade
- Back—D. Milburn

1920—MEADOW BROOK

- 1—F. S. von Stade
- 2—J. W. Webb
- 3—R. E. Strawbridge, Jr.
- Back—D. Milburn

1921—GREAT NECK

- 1—L. E. Stoddard
- 2—R. Wanamaker, II
- 3—J. W. Webb
- Back—R. E. Strawbridge, Jr.

1922—ARGENTINE

- 1—J. B. Miles
- 2—J. D. Nelson
- 3—D. B. Miles
- Back—L. L. Lacey

1923—MEADOW BROOK

- 1—R. Belmont
- 2—T. Hitchcock, Jr.
- 3—R. E. Strawbridge, Jr.
- Back—D. Milburn

1924—MIDWICK

- 1—E. G. Miller
- 2—E. L. Pedley
- 3—A. P. Perkins
- Back—C. F. Burke

1925—ORANGE COUNTY

- 1—W. A. Harriman
- 2—J. W. Webb
- 3—M. Stevenson
- Back—J. C. Cowdin

1926—HURRICANES

- 1—S. Sanford
- 2—E. L. Pedley
- 3—Capt. C. T. I. Roark
- Back—R. E. Strawbridge, Jr.

1927—SANDS POINT

- 1—W. A. Harriman
- 2—T. Hitchcock, Jr.
- 3—J. C. Cowdin
- Back—L. E. Stoddard

1928—MEADOW BROOK

- 1—C. V. Whitney
- 2—W. F. C. Guest
- 3—J. B. Miles
- Back—M. Stevenson

1929—HURRICANES

- 1—S. Sanford
- 2—Capt. C. T. I. Roark
- 3—J. W. Webb
- Back—R. E. Strawbridge, Jr.

1930—HURRICANES

- 1—S. Sanford
- 2—E. L. Pedley
- 3—Capt. C. T. I. Roark
- Back—R. E. Strawbridge, Jr.

1931—SANTA PAULA

- 1—A. Gazzotti
- 2—José Reynal
- 3—Juan Reynal
- Back—M. Andradá

1932—TEMPLETON

- 1—M. G. Phipps
- 2—W. F. C. Guest
- 3—S. B. Iglehart
- Back—R. R. Guest

National Open Polo Champions (Cont.)

1933—AURORA

1—S. H. Knox
2—J. P. Mills
3—E. T. Gerry
Back—E. J. Boeseke, Jr.

1934—TEMPLETON

1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1935—GREENTREE

1—G. H. Bostwick
2—T. Hitchcock, Jr.
3—G. Balding
Back—J. H. Whitney

1936—GREENTREE

1—G. H. Bostwick
2—G. Balding
3—T. Hitchcock, Jr.
Back—J. H. Whitney

1937—OLD WESTBURY

1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1938—OLD WESTBURY

1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1939—BOSTWICK FIELD

1—G. H. Bostwick
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—E. H. Tyrrell-Martin

1940—AKNÜSTI

1—G. S. Smith
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—A. L. Corey, Jr.

1941—GULF STREAM

1—J. H. A. Phipps
2—M. G. Phipps
3—C. S. von Stade
Back—A. L. Corey, Jr.

1946—HERRADURA

1—Gabriel Gracida
2—Guillermo Gracida
3—Alejandro Gracida
Back—José Gracida

1947—OLD WESTBURY

1—P. Silvero
2—C. C. Combs
3—S. B. Iglehart
Back—G. Oliver

1948—HURRICANES

1—L. Sheerin
2—P. Perkins
3—C. Smith
Back—S. Sanford

1949—HURRICANES

1—L. Sheerin
2—R. Cavanaugh
3—C. Smith
Back—S. Sanford

1950—BOSTWICK FIELD

1—G. H. Bostwick
2—George Oliver
3—A. L. Corey, Jr.
Back—D. Milburn, Jr.

1951—MILWAUKEE

1—Pedro Silvero
2—Peter Perkins
3—George Oliver
Back—Bob Uihlein

1952—BEVERLY HILLS

1—Bob Fletcher
2—Tony Veen
3—Bob Skene
Back—Carlton Beal

1953—MEADOW BROOK

1—Henry Lewis, III
2—Philip Iglehart
3—A. L. Corey, Jr.
Back—G. H. Bostwick

1954—M. BROOK—C. C. C.

1—A. D. Beveridge
2—Paul Barry
3—A. L. Corey, Jr.
Back—G. H. Bostwick

1955—TRIPLE C

1—A. D. Beveridge
2—Dr. W. Linfoot
3—Paul Barry
Back—Harold Barry

1956—BRANDYWINE

1—Raworth Williams
2—Ray Harrington
3—Clarence Combs
Back—William Mayer

1957—DETROIT CCC

1—A. D. Beveridge
2—Robert Beveridge
3—George Oliver
Back—Harold Barry

CHESS

Source: *American Chess Bulletin* of New York.

World Champions

1851-58 Adolph Anderssen, Germany
1858-62 Paul Morphy, New Orleans, La.
1862-66 Adolph Anderssen, Germany
1866-94 William Steinitz, Austria
1894-1921 Emanuel Lasker, Germany
1921-27 Jose R. Capablanca, Cuba
1927-35 Alexander A. Alekhine, Russia
1935-37 Dr. Max Euwe, Netherlands
1937-46 Alexander A. Alekhine, Russia*
1948-57 Mikhail Botvinnik, Russia
1957 Vassily Smyslov, Russia

* Alekhine, a French citizen, died while champion.

United States Champions

1852-62 Paul Morphy, New Orleans, La.
1871-87 George H. Mackenzie, New York

1887-92 Max Judd, St. Louis, Mo.
1892-94 Simon Lipschuetz, New York
1894 Jackson W. Showalter, Georgetown, Ky.
1894 Albert B. Hodges, Staten Island, N. Y.*
1894-97 Jackson W. Showalter, Georgetown, Ky.
1897-1906 Harry Nelson Pillsbury, Boston, Mass.
1906-09 Jackson W. Showalter, Georgetown, Ky.
1909-36 Frank J. Marshall, New York
1936-44 Samuel Reshevsky, New York†
1944-46 Arnold S. Denker, New York
1946 Samuel Reshevsky, Boston
1948 Herman Steiner, Los Angeles
1951 Larry Evans, New York
1954-57 Arthur Bisguier, New York

* Retired after winning return match with Showalter.
† In 1942, Isaac I. Kashdan of New York was co-champion for a while because of a tie with Reshevsky in that year's tournament. Reshevsky won the play-off.

RODEO

Source: Gene Lamb, Editor, *Rodeo Sports News*, Denver, Colo.

Rodeo Cowboys' Association All-Around Cowboy

	Points		Points
1947—Todd Whatley, Hugo, Okla.....	(a)	1953—Bill Linderman, Walla Walla, Wash.....	33,674
1948—Gerald Roberts, Strong City, Kan.....	21,766	1954—Buck Rutherford, Lenapah, Okla.....	40,404
1949—Jim Shoulders, Henryetta, Okla.....	21,495	1955—Casey Tibbs, Ft. Pierre, S. D.....	42,065
1950—Bill Linderman, Walla Walla, Wash.....	30,715	1956—Jim Shoulders, Henryetta, Okla.....	43,381
1951—Casey Tibbs, Ft. Pierre, S. D.....	29,104	1957—Jim Shoulders, Henryetta, Okla.....	33,299
1952—Harry Tompkins, Dublin, Tex.....	30,934		

(a) No official total. Whatley scored approximately 20,000 points.

GOLF

IT MAY BE that golf originated in Holland—historians believe it did—but certainly Scotland fostered the game and is famous for it. In fact, in 1457 the Scottish Parliament, disturbed because football and golf had lured young Scots from the more soldierly exercise of archery, passed an ordinance that "futeball and golf be utterly cryit down and nocht usit". James I and Charles I of the royal line of Stuarts were golf enthusiasts, whereby the game came to be known as "the royal and ancient game of golf".

The golf balls used in the early games were leather covered and stuffed with feathers. Clubs of all kinds were fashioned by hand to suit individual players. The great step in spreading the game came with the change from the feather ball to the gutta-percha ball about 1850, and in 1860 formal competition began with the establishment of an annual tournament for the British open championship. There are records of "golf clubs" in the United

States as far back as colonial days but no proof of actual play before John Reid and some friends laid out six holes on the Reid lawn in Yonkers, N. Y., in 1888 and played there with the golf balls and clubs brought over from Scotland by Robert Lockhart. This group then formed the St. Andrews Golf Club of Yonkers, and golf was established in this country.

However, it remained a rather sedate and almost aristocratic pastime until a 20-year-old ex-caddy, Francis Ouimet of Boston, defeated two great British professionals, Harry Vardon and Ted Ray, in the United States Open championship at Brookline, Mass., in 1913. This feat put the game and Francis Ouimet on the front pages of the newspapers and stirred a wave of enthusiasm for the sport. The greatest feat so far in golf history was that of Robert Tyre Jones, Jr. of Atlanta, Ga., in winning the British Open, the British Amateur, the U. S. Open and the U. S. Amateur titles in one year, 1930.

Golf Statistics

Source: United States Golf Association.

UNITED STATES OPEN CHAMPIONS

Year	Winner	Score	Where played	Year	Winner	Score	Where played
1895	Horace Rawlins.....	173	Newport	1926	R. T. Jones, Jr.(b).....	293	Scioto
1896	James Foulis.....	152	Shinnecock Hills	1927	Tommy Armour (a).....	301	Oakmont
1897	Joe Lloyd.....	162	Chicago	1928	Johnny Farrell (a).....	294	Olympia Fields
1898*	Fred Herd.....	328	Myopia	1929	R. T. Jones, Jr.(a,b).....	294	Winged Foot
1899	Willie Smith.....	315	Baltimore	1930	R. T. Jones, Jr.(b).....	287	Interlachen
1900	Harry Vardon.....	313	Chicago	1931	Billy Burke (a).....	292	Inverness
1901	Willie Anderson (a).....	331	Myopia	1932	Gene Sarazen.....	286	Fresh Meadow
1902	L. Auchterlonie.....	307	Garden City	1933	John Goodman (b).....	287	North Shore
1903	Willie Anderson (a).....	307	Baltusrol	1934	Olin Dutra.....	293	Merion
1904	Willie Anderson.....	303	Glen View	1935	Sam Parks, Jr.....	299	Oakmont
1905	Willie Anderson.....	314	Myopia	1936	Tony Manero.....	282	Baltusrol
1906	Alex Smith.....	295	Onwentsia	1937	Ralph Guldahl.....	281	Oakland Hills
1907	Alex Ross.....	302	Philadelphia	1938	Ralph Guldahl.....	284	Cherry Hills
1908	Fred McLeod (a).....	322	Myopia	1939	Byron Nelson (a).....	284	Philadelphia
1909	George Sargent.....	290	Englewood	1940	W. Lawson Little, Jr.(a).....	287	Canterbury
1910	Alex Smith (a).....	298	Philadelphia	1941	Craig Wood.....	284	Colonial
1911	J. J. McDermott (a).....	307	Chicago	1942-45	No tournaments†		
1912	J. J. McDermott.....	294	Buffalo	1946	Lloyd Mangrum (a).....	284	Canterbury
1913	Francis Ouimet (a,b).....	304	Brookline	1947	Lew Worsham (a).....	282	St. Louis
1914	Walter Hagen.....	290	Midlothian	1948	Ben Hogan.....	276	Riviera
1915	Jerome D. Travers (b).....	297	Baltusrol	1949	Cary Middlecoff.....	286	Medinah
1916	Charles Evans, Jr.(b).....	286	Minikahda	1950	Ben Hogan (a).....	287	Merion
1917-18	No tournaments†			1951	Ben Hogan.....	287	Oakland Hills
1919	Walter Hagen (a).....	301	Brae Burn	1952	Julius Boros.....	281	Northwood
1920	Edward Ray.....	295	Inverness	1953	Ben Hogan.....	283	Oakmont
1921	James M. Barnes.....	289	Columbia	1954	Ed Furgol.....	284	Baltusrol
1922	Gene Sarazen.....	288	Skokie	1955	Jack Fleck (a).....	287	Olympic
1923	R. T. Jones, Jr.(a,b).....	296	Inwood	1956	Cary Middlecoff.....	281	Oak Hill
1924	Cyril Walker.....	297	Oakland Hills	1957	Dick Mayer (a).....	298	Inverness
1925	W. Macfarlane (a).....	291	Worcester				

(a) Won play-off. (b) Amateur. * In 1898 competition was extended to 72 holes. † In 1917, Jock Hutchison won a 292, won an Open Patriotic Tournament for the benefit of the American Red Cross at Whitmarsh Valley Country Club. ‡ In 1942, Ben Hogan, with a 271, won a Hale American National Open Tournament for the benefit of the Navy Relief Society and USO at Ridgemoor Country Club.

UNITED STATES AMATEUR CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1895	Charles B. Macdonald.....	Newport	1926	George Von Elm.....	Baltusrol
1896	H. J. Whigham.....	Shinnecock Hills	1927	R. T. Jones, Jr.....	Minikahda
1897	H. J. Whigham.....	Chicago	1928	R. T. Jones, Jr.....	Brae Burn
1898	Findlay S. Douglas.....	Morris County	1929	H. R. Johnston.....	Del Monte
1899	H. M. Harriman.....	Onwentsia	1930	R. T. Jones, Jr.....	Merion
1900	Walter J. Travis.....	Garden City	1931	Francis Ouimet.....	Beverly
1901	Walter J. Travis.....	Atlantic City	1932	C. R. Somerville.....	Baltimore
1902	Louis N. James.....	Glen View	1933	G. T. Dunlap, Jr.....	Kenwood
1903	Walter J. Travis.....	Nassau	1934	W. Lawson Little, Jr.....	Brookline
1904	H. Chandler Egan.....	Baltusrol	1935	W. Lawson Little, Jr.....	Cleveland
1905	H. Chandler Egan.....	Chicago	1936	John W. Fischer.....	Garden City
1906	Eben M. Byers.....	Englewood	1937	John Goodman.....	Alderwood
1907	Jerome D. Travers.....	Euclid	1938	Willie Turnesa.....	Oakmont
1908	Jerome D. Travers.....	Garden City	1939	Marvin H. Ward.....	North Shore
1909	Robert A. Gardner.....	Chicago	1940	R. D. Chapman.....	Winged Foot
1910	W. C. Fownes, Jr.....	Brookline	1941	Marvin H. Ward.....	Omaha
1911	Harold H. Hilton.....	Apawamis	1946	Ted Bishop.....	Baltusrol
1912	Jerome D. Travers.....	Chicago	1947	Robert Riegel.....	Del Monte
1913	Jerome D. Travers.....	Garden City	1948	Willie Turnesa.....	Memphis
1914	Francis Ouimet.....	Ekwanok	1949	Charles Coe.....	Oak Hill
1915	Robert A. Gardner.....	Detroit	1950	Sam Urzetta.....	Minneapolis
1916	Charles Evans, Jr.....	Merion	1951	Billy Maxwell.....	Saucon Valley
1919	S. D. Herron.....	Oakmont	1952	Jack Westland.....	Seattle
1920	Charles Evans, Jr.....	Engineers'	1953	Gene Littler.....	Okla. City
1921	Jesse P. Guilford.....	St. Louis	1954	Arnold Palmer.....	Detroit
1922	Jess W. Sweetser.....	Brookline	1955	Harvie Ward.....	Richmond
1923	Max R. Marston.....	Flossmoor	1956	Harvie Ward.....	Lake Forest
1924	R. T. Jones, Jr.....	Merion	1957	Hillman Robbins.....	Brookline
1925	R. T. Jones, Jr.....	Oakmont			

UNITED STATES WOMEN AMATEUR CHAMPIONS

1895	Mrs. C. S. Brown.....	Meadow Brook	1926	Mrs. G. H. Stetson.....	Merion
1896	Beatrix Hoyt.....	Morris County	1927	Mrs. M. B. Horn.....	Cherry Valley
1897	Beatrix Hoyt.....	Essex (Mass.)	1928	Glenna Collett.....	Hot Springs (Va.)
1898	Beatrix Hoyt.....	Ardsley	1929	Glenna Collett.....	Oakland Hills
1899	Ruth Underhill.....	Philadelphia	1930	Glenna Collett.....	Los Angeles
1900	Frances C. Griscom.....	Shinnecock Hills	1931	Helen Hicks.....	Buffalo
1901	Genevieve Hecker.....	Baltusrol	1932	Virginia Van Wie.....	Salem
1902	Genevieve Hecker.....	Brookline	1933	Virginia Van Wie.....	Exmoor
1903	Bessie Anthony.....	Chicago	1934	Virginia Van Wie.....	Whitemarsh Valley
1904	G. M. Bishop.....	Merion	1935	Mrs. E. H. Vare, Jr.....	Interlachen
1905	Pauline Mackay.....	Morris County	1936	Pamela Barton.....	Canoe Brook
1906	Harriot S. Curtis.....	Brae Burn	1937	Mrs. J. A. Page, Jr.....	Memphis
1907	Margaret Curtis.....	Midlothian	1938	Patty Berg.....	Westmoreland
1908	K. C. Harley.....	Chevy Chase	1939	Betty Jameson.....	Wee Burn
1909	D. I. Campbell.....	Merion	1940	Betty Jameson.....	Del Monte
1910	D. I. Campbell.....	Homewood	1941	Mrs. Frank Newell.....	Brookline
1911	Margaret Curtis.....	Baltusrol	1946	Mrs. M. D. Zaharias.....	Tulsa
1912	Margaret Curtis.....	Essex (Mass.)	1947	Louise Suggs.....	Franklin Hills
1913	Gladys Ravenscroft.....	Wilmington	1948	Grace Lengzyk.....	Pebble Beach
1914	Mrs. H. A. Jackson.....	Nassau	1949	Mrs. D. G. Porter.....	Merion
1915	Mrs. C. H. Vanderbeck.....	Onwentsia	1950	Beverly Hanson.....	East Lake
1916	Alexa Stirling.....	Belmont Springs	1951	Dorothy Kirby.....	Town and Country
1919	Alexa Stirling.....	Shawnee	1952	Mrs. Jacqueline Pung.....	Waverley
1920	Alexa Stirling.....	Mayfield	1953	Mary Lena Faulk.....	Rhode Island
1921	Marion Hollins.....	Hollywood (N. J.)	1954	Barbara Romack.....	Sewickley
1922	Glenna Collett.....	Greenbrier	1955	Patricia Lesser.....	Myers Park
1923	Edith Cummings.....	Westchester-Biltmore	1956	Marlene Stewart.....	Meridian Hills
1924	Mrs. D. C. Hurd.....	Rhode Island	1957	Joanne Gunderson.....	Del Paso
1925	Glenna Collett.....	St. Louis			

UNITED STATES WOMEN'S OPEN CHAMPIONS

1946—Patty Berg (match play).....	—	1952—Louise Suggs.....	284
1947—Betty Jameson.....	295	1953—Betsy Rawls.....	302
1948—Mrs. Mildred D. Zaharias.....	300	1954—Mrs. Mildred D. Zaharias.....	291
1949—Louise Suggs.....	291	1955—Fay Crocker.....	299
1950—Mrs. Mildred D. Zaharias.....	291	1956—Mrs. Katherine Cornelius.....	302
1951—Betsy Rawls.....	293	1957—Betsy Rawls.....	299

UNITED STATES P. G. A. CHAMPIONS

Year	Winner	Where played	1937	Denny Shute.....	Pittsburgh, Pa.
1916	Jim Barnes.....	Siwanoy, N. Y.	1938	Paul Runyan.....	Shawnee-on-Delaware, Pa.
1919	Jim Barnes.....	Engineers, L. I.	1939	Henry Picard.....	Pomonok, L. I.
1920	Jock Hutchison.....	Flossmoor, Ill.	1940	Byron Nelson.....	Hershey, Pa.
1921	Walter Hagen.....	Inwood, L. I.	1941	Victor Ghezzi.....	Denver, Colo.
1922	Gene Sarazen.....	Oakmont, Pa.	1942	Sam Snead.....	Atlantic City, N. J.
1923	Gene Sarazen.....	Pelham, N. Y.	1944	Bob Hamilton.....	Spokane, Wash.
1924	Walter Hagen.....	French Lick, Ind.	1945	Byron Nelson.....	Dayton, Ohio
1925	Walter Hagen.....	Olympia Fields, Ill.	1946	Ben Hogan.....	Portland, Oreg.
1926	Walter Hagen.....	Salisbury, L. I.	1947	Jim Ferrier.....	Plum Hollow, Mich.
1927	Walter Hagen.....	Dallas, Texas	1948	Ben Hogan.....	St. Louis, Mo.
1928	Leo Diegel.....	Baltimore, Md.	1949	Sam Snead.....	Richmond, Va.
1929	Leo Diegel.....	Hillcrest, Calif.	1950	Chandler Harper.....	Columbus, Ohio
1930	Tommy Armour.....	Fresh Meadow, L. I.	1951	Sam Snead.....	Oakmont, Pa.
1931	Tom Creavy.....	Wannamoisett, R. I.	1952	Jim Turnesa.....	Louisville, Ky.
1932	Olin Dutra.....	Keller Course, Minn.	1953	Walter Burkemo.....	Birmingham, Mich.
1933	Gene Sarazen.....	Blue Mound, Wis.	1954	Chick Harbert.....	Keller Course
1934	Paul Runyan.....	Park Club, Buffalo	1955	Doug Ford.....	Meadowbrook
1935	Johnny Revolta.....	Twin Hills, Okla.	1956	Jack Burke, Jr.....	Canton, Mass.
1936	Denny Shute.....	Pinehurst, N. C.	1957	Lionel Hebert.....	Dayton, Ohio

BRITISH OPEN CHAMPIONS

Year	Winner	Score	Where played	1903	Harry Vardon.....	300	Prestwick
1860	W. Park.....	174	Prestwick	1904	Jack White.....	296	Sandwich
1861	Tom Morris, Sr.....	163	Prestwick	1905	James Braid.....	318	St. Andrews
1862	Tom Morris, Sr.....	163	Prestwick	1906	James Braid.....	300	Muirfield
1863	W. Park.....	168	Prestwick	1907	Arnaud Massy.....	312	Hoylake
1864	Tom Morris, Sr.....	167	Prestwick	1908	James Braid.....	291	Prestwick
1865	A. L. Strath.....	162	Prestwick	1909	J. H. Taylor.....	295	Deal
1866	W. Park.....	169	Prestwick	1910	James Braid.....	299	St. Andrews
1867	Tom Morris, Sr.....	170	Prestwick	1911	Harry Vardon (a).....	303	Sandwich
1868	Tom Morris, Jr.....	170	Prestwick	1912	E. Ray.....	295	Muirfield
1869	Tom Morris, Jr.....	154	Prestwick	1913	J. H. Taylor.....	304	Hoylake
1870	Tom Morris, Jr.....	149	Prestwick	1914	Harry Vardon.....	306	Prestwick
1872	Tom Morris, Jr.....	166	Prestwick	1920	George Duncan.....	303	Deal
1873	Tom Kidd.....	179	St. Andrews	1921	Jock Hutchison (a).....	296	St. Andrews
1874	Mungo Park.....	159	Musselburgh	1922	Walter Hagen.....	300	Sandwich
1875	Willie Park.....	166	Prestwick	1923	A. G. Havers.....	295	Troon
1876	Bob Martin.....	176	St. Andrews	1924	Walter Hagen.....	301	Hoylake
1877	Jamie Anderson.....	160	Musselburgh	1925	Jim Barnes.....	300	Prestwick
1878	Jamie Anderson.....	157	Prestwick	1926	R. T. Jones, Jr.....	291	Royal Lytham, St. Anne
1879	Jamie Anderson.....	170	St. Andrews	1927	R. T. Jones, Jr.....	285	St. Andrews
1880	Bob Ferguson.....	162	Musselburgh	1928	Walter Hagen.....	292	Sandwich
1881	Bob Ferguson.....	170	Prestwick	1929	Walter Hagen.....	292	Muirfield
1882	Bob Ferguson.....	171	St. Andrews	1930	R. T. Jones, Jr.....	291	Hoylake
1883	W. L. Fernie (a).....	159	Musselburgh	1931	T. D. Armour.....	296	Carnoustie
1884	Jack Simpson.....	160	Prestwick	1932	G. Sarazen.....	283	Princes, Sandwich
1885	Bob Martin.....	171	St. Andrews	1933	D. Shute (a).....	292	St. Andrews
1886	D. L. Brown.....	157	Musselburgh	1934	T. H. Cotton.....	283	Sandwich
1887	W. Park, Jr.....	161	Prestwick	1935	A. Perry.....	283	Muirfield
1888	Jack Burns.....	171	St. Andrews	1936	A. H. Padgham.....	287	Royal Liverpool
1889	W. Park, Jr. (a).....	155	Musselburgh	1937	T. H. Cotton.....	290	Carnoustie
1890	John Ball.....	164	Prestwick	1938	R. A. Whitcombe.....	295	Sandwich
1891	Hugh Kirkaldy.....	166	St. Andrews	1939	R. Burton.....	290	St. Andrews
1892*	H. H. Hilton.....	305	Muirfield	1946	Sam Snead.....	290	St. Andrews
1893	W. Auchterlonie.....	322	Prestwick	1947	Fred Daly.....	293	Hoylake
1894	J. H. Taylor.....	326	Sandwich	1948	Henry Cotton.....	284	Gullane, Muirfield
1895	J. H. Taylor.....	322	St. Andrews	1949	Bobby Locke (a).....	283	Sandwich, Deal
1896	Harry Vardon (a).....	316	Muirfield	1950	Bobby Locke.....	279	Troon, Lochgreen
1897	H. H. Hilton.....	314	Hoylake	1951	Max Faulkner.....	285	Portrush
1898	Harry Vardon.....	307	Prestwick	1952	Bobby Locke.....	287	Royal Lytham, St. Anne
1899	Harry Vardon.....	310	Sandwich	1953	Ben Hogan.....	282	Carnoustie
1900	J. H. Taylor.....	309	St. Andrews	1954	Peter Thomson.....	283	Southport
1901	James Braid.....	309	Muirfield	1955	Peter Thomson.....	281	St. Andrews
1902	Alex Herd.....	307	Hoylake	1956	Peter Thomson.....	286	Hoylake
				1957	Bobby Locke.....	279	St. Andrews

(a) Won play-off. * In 1892 competition was extended to 72 holes.

BRITISH AMATEUR CHAMPIONS

Year	Winner	Where played	Year	Winner	Where played
1885	A. F. MacFie	Hoylake	1921	W. I. Hunter	Hoylake
1886	H. G. Hutchinson	St. Andrews	1922	E. W. E. Holderness	Prestwick
1887	H. G. Hutchinson	Hoylake	1923	R. H. Wethered	Deal
1888	John Ball	Prestwick	1924	E. W. E. Holderness	St. Andrews
1889	J. E. Laidlay	St. Andrews	1925	Robert Harris	Westward Ho
1890	John Ball	Hoylake	1926	Jess W. Sweetser	Muirfield
1891	J. E. Laidlay	St. Andrews	1927	Dr. W. Tweddell	Hoylake
1892	John Ball	Sandwich	1928	T. P. Perkins	Prestwick
1893	Peter L. Anderson	Prestwick	1929	C. J. H. Tolley	Sandwich
1894	John Ball	Hoylake	1930	R. T. Jones, Jr.	St. Andrews
1895	L. M. B. Melville	St. Andrews	1931	E. Martin Smith	Westward Ho
1896	F. G. Tait	Sandwich	1932	J. De Forest	Muirfield
1897	A. J. T. Allan	Muirfield	1933	Hon. M. Scott	Hoylake
1898	F. G. Tait	Hoylake	1934	W. Lawson Little, Jr.	Prestwick
1899	John Ball	Prestwick	1935	W. Lawson Little, Jr.	Royal Lytham, St. Annes
1900	H. H. Hilton	Sandwich	1936	H. Thomson	St. Andrews
1901	H. H. Hilton	St. Andrews	1937	R. Sweeny, Jr.	Sandwich
1902	C. Hutchings	Hoylake	1938	C. R. Yates	Troon
1903	R. Maxwell	Muirfield	1939	A. Kyle	Hoylake
1904	W. J. Travis	Sandwich	1946	J. Bruen	Birkdale
1905	A. G. Barry	Prestwick	1947	Willie Turnesa	Carnoustie
1906	James Robb	Hoylake	1948	Frank Stranahan	Sandwich
1907	John Ball	St. Andrews	1949	Max McCready	Portmarnock
1908	E. A. Lassen	Sandwich	1950	Frank Stranahan	St. Andrews
1909	R. Maxwell	Muirfield	1951	Richard D. Chapman	Porthcawl
1910	John Ball	Hoylake	1952	Harvie Ward	Prestwick
1911	H. H. Hilton	Prestwick	1953	Joe Carr	Hoylake
1912	John Ball	Westward Ho	1954	Doug Bachli	Gullane
1913	H. H. Hilton	St. Andrews	1955	Lt. Joe Conrad	Royal Lytham, St. Annes
1914	J. L. C. Jenkins	Sandwich	1956	John Beharrell	Troon
1920	Cyril J. H. Tolley	Muirfield	1957	Reid Jack	Formby

Intercollegiate Golf Association of America Champions

Year	Individual	Team	Year	Individual	Team
1897	Louis P. Bayard, Jr., Princeton	Yale	1917-18	No tournaments	
1898*	John Reid, Jr., Yale	Harvard	1919	A. L. Walker, Jr., Columbia	Princeton
	James F. Curtis, Harvard	Yale	1920	Jess W. Sweetser, Yale	Princeton
1899	Percy Pyne, 2d, Princeton	Harvard	1921	J. Simpson Dean, Princeton	Dartmouth
1900	No tournament		1922	Pollack Boyd, Dartmouth	Princeton
1901	H. Lindsley, Harvard	Harvard	1923	Dexter Cummings, Yale	Princeton
1902*	Charles Hitchcock, Jr., Yale	Yale	1924	Dexter Cummings, Yale	Yale
	H. Chandler Egan, Harvard	Harvard	1925	G. Fred Lamprecht, Tulane	Yale
1903	F. O. Reinhart, Princeton	Harvard	1926	G. Fred Lamprecht, Tulane	Yale
1904	A. L. White, Harvard	Harvard	1927	Watts Gunn, Georgia Tech.	Princeton
1905	Robert Abbott, Yale	Yale	1928	M. J. McCarthy, Jr., Georgetown	Princeton
1906	W. E. Clow, Jr., Yale	Yale	1929	Tom Aycock, Yale	Princeton
1907	Ellis Knowles, Yale	Yale	1930	George T. Dunlap, Jr., Princeton	Princeton
1908	H. H. Wilder, Harvard	Yale	1931	George T. Dunlap, Jr., Princeton	Yale
1909	Albert Seckel, Princeton	Yale	1932	John W. Fischer, Jr., Michigan	Yale
1910	Robert E. Hunter, Yale	Yale	1933	Walter Emery, Oklahoma	Yale
1911	George C. Stanley, Yale	Yale	1934	Charles R. Yates, Georgia Tech.	Michigan
1912	F. C. Davison, Harvard	Yale	1935	Ed White, U. of Texas	Michigan
1913	Nathaniel Wheeler, Yale	Yale	1936	Charles Kocsis, Michigan	Yale
1914	Edward P. Allis, 3d, Harvard	Princeton	1937	Fred Haas, Jr., L. S. U.	Princeton
1915	Francis R. Blossom, Yale	Yale	1938	John P. Burke, Georgetown	Stanford
1916	J. W. Hubbell, Harvard	Princeton			

* Two tournaments, in spring and fall.

National Collegiate Champions

Year	Individual	Team	Year	Individual	Team
1939	Vincent D'Antoni, Tulane	Stanford	1948	Bobby Harris, San Jose St.	San Jose St.
1940	F. Dixon Brooke, Virginia	(Princeton)* L. S. U.*	1949	Harvie Ward, North Carolina	No. Tex. St.
1941	Earl Stewart, L. S. U.	Stanford	1950	Fred Wampler, Purdue	No. Tex. St.
1942	Frank Tatum, Jr., Stanford	(Stanford)* L. S. U.*	1951	Tom Niepore, Ohio State	No. Tex. St.
1943	Wallace Ulrich, Carleton	Yale	1952	Jim Vickers, Oklahoma	No. Tex. St.
1944	Louis Lick, Minnesota	Notre Dame	1953	Earl Moeller, Okla. A. & M.	Stanford
1945	John Lorms, Ohio State	Ohio State	1954	Hillman Robbins, Jr., Memphis St.	S. M. U.
1946	George Hamer, Georgia	Stanford	1955	Joe Campbell, Purdue	L. S. U.
1947	Dave Barclay, Michigan	L. S. U.	1956	Rick Jones, Ohio State	Houston
			1957	Rex Baxter, Houston	Houston

* Tie.

U. S. PUBLIC LINKS CHAMPIONS

1922—Edmund R. Held
 1923—Richard J. Walsh
 1924—Joseph Coble
 1925—R. J. McAuliffe
 1926—Lester Bolstad
 1927—29—C. F. Kaufmann
 1930—Robert E. Wingate
 1931—Charles Ferrera
 1932—R. L. Miller
 1933—Charles Ferrera
 1934—David A. Mitchell

1935—Frank Strafaci
 1936—B. Patrick Abbott
 1937—Bruce N. McCormick
 1938—Al Leach
 1939—Andrew Szwedko
 1940—Robert C. Clark
 1941—William M. Welch
 1942—45—No competition
 1946—Smiley Quick
 1947—Wilfred Crossley
 1948—Michael R. Ferentz

1949—Ken Towns
 1950—Stan Bielat
 1951—Dave Stanley
 1952—Omer L. Bogan
 1953—Ted Richards
 1954—Gene Andrews
 1955—Sam Kocsis
 1956—James Buxbaum
 1957—Don Essig

Walker Cup Record

MEN (AMATEUR)

Year	Where played
*1921 United States 9, Great Britain 3...	Hoyleake
1922 United States 8, Great Britain 4...	Southampton
1923 United States 6, Great Britain 5...	St. Andrews, Scotland
1924 United States 9, Great Britain 3...	Garden City G. C.
1926 United States 6, Great Britain 5...	St. Andrews, Scotland
1928 United States 11, Great Britain 1...	Wheaton, Ill.
1930 United States 10, Great Britain 2...	Royal St. George's
1932 United States 8, Great Britain 1...	The Country Club, Brookline, Mass.
1934 United States 9, Great Britain 2...	St. Andrews, Scotland
1936 United States 9, Great Britain 0...	Pine Valley G. C., Clementon, N. J.
1938 Great Britain 7, United States 4...	St. Andrews, Scotland
1947 United States 8, Great Britain 4...	St. Andrews
1949 United States 10, Great Britain 2...	Winged Foot
1951 United States 6, Great Britain 3...	Southport
1953 United States 9, Great Britain 3...	Kittansett
1955 United States 10, Great Britain 2...	St. Andrews
1957 United States 8, Great Britain 3...	Minikahda

* Informal match.

Ryder Cup Record

MEN (PROFESSIONAL)

Year	Where played
*1926 Great Britain 13½, United States 1½	Wentworth
1927 United States 9½, Great Britain 2½	Worcester C. C.
1929 Great Britain 7, United States 5	Moortown, Eng.
1931 United States 9, Great Britain 3	Scioto C. C.
1933 Great Britain 6½, United States 5½	Southport, Eng.
1935 United States 9, Great Britain 3	Ridgewood C. C.
1937 United States 8, Great Britain 4	Southport, Eng.
1947 United States 11, Great Britain 1	Portland, Oreg.
1949 United States 7, Great Britain 5	Ganton, Eng.
1951 United States 9½, Great Britain 2½	Pinehurst, N. C.
1953 United States 6½, Great Britain 5½	Wentworth
1955 United States 8, Great Britain 4	Palm Springs
1957 Great Britain 7, United States 4	Workshop, Eng.

* Informal match.

Curtis Cup Record

WOMEN

Year	Where played
*1930 Great Britain 8, United States 6	Sunningdale
1932 United States 5½, Great Britain 3½	Wentworth, Eng.
1934 United States 6½, Great Britain 2½	Chevy Chase
1936 United States 4½, Great Britain 4½	Gleneagles
1938 United States 5½, Great Britain 3½	Essex C. C.
1948 United States 6½, Great Britain 2½	Birkdale
1950 United States 7½, Great Britain 1½	Buffalo
1952 Great Britain 5, United States 4	Muirfield
1954 United States 6, Great Britain 3	Merion
1956 Great Britain 5, United States 4	Sandwich

* Informal match.

Joe Louis' Title Fights

1937	
June 22 James J. Braddock, Chicago.....	KO 8
(Won heavyweight championship of the world)	
Aug. 30 Tommy Farr, Yankee Stadium.....	W 15

1938

Feb. 23 Nathan Mann, Madison Square Garden....	KO 3
Apr. 1 Harry Thomas, Chicago.....	KO 5
June 22 Max Schmeling, Yankee Stadium.....	KO 1

1939

Jan. 25 John Henry Lewis, Madison Sq. Garden....	KO 1
Apr. 17 Jack Roper, Los Angeles.....	KO 1
June 28 Tony Galento, Yankee Stadium.....	KO 4
Sept. 20 Bob Pastor, Detroit.....	KO 11

1940

Feb. 9 Arturo Godoy, Madison Square Garden....	W 15
Mar. 29 Johnny Paycheck, Madison Square Garden..	KO 2
June 20 Arturo Godoy, Yankee Stadium.....	KO 8
Dec. 16 Al McCoy, Boston.....	KO 6

1941

Jan. 31 Red Burman, Madison Square Garden....	KO 5
Feb. 17 Gus Dorazio, Philadelphia.....	KO 2
Mar. 21 Abe Simon, Detroit.....	KO 13

Apr. 8 Tony Musto, St. Louis.....	KO 9
May 23 Buddy Baer, Washington, D. C.....	W disq.
June 18 Billy Conn, Polo Grounds.....	KO 13
Sept. 29 Lou Nova, Polo Grounds.....	KO 6

1942

Jan. 9 Buddy Baer, Madison Square Garden.....	KO 3
Mar. 27 Abe Simon, Madison Square Garden.....	KO 6

1946

June 19 Billy Conn, Yankee Stadium.....	KO 7
Sept. 18 Tami Mauriello, Yankee Stadium.....	KO 10

1947

Dec. 5 Joe Walcott, Madison Square Garden.....	W 15
--	------

1948

June 25 Joe Walcott, Yankee Stadium.....	KO 1
(Announced retirement as champion Mar. 1, 1949)	

1950

Sept. 27 Ezzard Charles, Yankee Stadium.....	L 1
(Came out of retirement and sought to regain championship in bout with Charles)	

BOXING

WHETHER it be called pugilism, prize fighting or boxing, there is no tracing "the Sweet Science" to any definite source. Tales of rivals exchanging blows for fun, fame or money go back to earliest recorded history and classical legend. There was a mixture of boxing and wrestling called the "pancratium" in the ancient Olympic Games and in such contests the rivals belabored one another with hands fortified with heavy leather wrappings that were sometimes studded with metal. More than one Olympic competitor lost his life at this brutal exercise.

There was little law or order in pugilism until Jack Broughton, one of the early champions of England, drew up a set of rules for the game in 1743. Broughton, called "the father of English boxing," also is credited with having invented boxing gloves. However, these gloves—or "mufflers" as they were called—were used only in teaching "the manly art of self-defense" or in training bouts. All professional

championship fights were contested with "bare knuckles" until 1892 when John L. Sullivan lost the heavyweight championship of the world to James J. Corbett in New Orleans in a bout in which both contestants wore regulation gloves.

The Broughton rules were superseded by the London Prize Ring Rules of 1838. The 8th Marquess of Queensberry, with the help of John G. Chambers, put forward the "Queensberry Rules" in 1866, a code that called for gloved contests. Amateurs took quickly to the Queensberry Rules, the professionals slowly.

There is no official international set of rules for boxing even today. Amateur organizations set rules for amateurs in different countries and professional rules set by boxing commissions vary even in different sections of the United States, but the variations are for the most part minor. A prize fighter doesn't have to change his style greatly to ply his trade anywhere in the world.

Boxing Statistics

Sources: Nat Fleischer's *All-Time Ring Record Book*, published and copyrighted by The Ring Book Shop, Inc., Madison Square Garden, New York, N. Y.

Boxing's Biggest Gates

WF—Won on foul.		ND—No decision.		(1st)—First bout.	(2d)—Second bout.	(3d)—Third bout.	
Date	Winner, weight	Loser, weight		Rounds	Site	Receipts	Attendance
Sept. 22, 1927	Tunney (189½)-Dempsey (192½) (2d)...			10	Soldier Field, Chicago.....	\$2,658,660	104,943
June 19, 1946	Louis (207)-Conn (187) (2d).....		KO 8	Yankee Stadium, New York.....	1,925,564	45,266	
Sept. 23, 1926	Tunney (189½)-Dempsey (190) (1st)....		10	Sesquicentennial Stdm., Phila....	1,895,733	120,757	
July 2, 1921	Dempsey (188)-Carpentier (172).....		KO 4	Boyle's 30 Acres, Jersey City.....	1,789,238	80,000	
Sept. 14, 1923	Dempsey (192½)-Firpo (216½).....		KO 2	Polo Grounds, New York.....	1,188,603	82,000	
July 21, 1927	Dempsey (194½)-Sharkey (196).....		KO 7	Yankee Stadium, New York.....	1,083,530	75,000	
June 22, 1938	Louis (198½)-Schmeling (193) (2d).....		KO 1	Yankee Stadium, New York.....	1,015,012	70,000	
Sept. 24, 1935	Louis (199¼)-Max Baer (210¼).....		KO 4	Yankee Stadium, New York.....	1,000,832	88,150	
Sept. 21, 1955	Marciano (188¼)-Moore (188).....		KO 9	Yankee Stadium, New York.....	948,117	61,574	
June 25, 1948	Louis (213½)-Walcott (194¼) (2d).....		KO 11	Yankee Stadium, New York.....	841,739	42,667	
Sept. 12, 1951	Robinson (157½)-Turpin (159) (2d).....		KO 10	Polo Grounds, New York.....	767,626	61,370	
June 12, 1930	Schmeling (188)-Sharkey (197) (1st)....		WF 4	Yankee Stadium, New York.....	749,935	79,222	
June 22, 1937	Louis (197¼)-Braddock (197).....		KO 8	Comiskey Park, Chicago.....	715,470	45,500	
July 26, 1928	Tunney (192)-Heeney (203½).....		KO 11	Yankee Stadium, New York.....	691,014	45,890	
Sept. 29, 1941	Louis (202¼)-Nova (202¼).....		KO 6	Polo Grounds, New York.....	583,711	56,549	
Sept. 23, 1957	Basilio (153½)-Robinson (160) (1st)....		15	Yankee Stadium, New York.....	556,467	38,072	
June 19, 1936	Schmeling (192)-Louis (198) (1st).....		KO 12	Yankee Stadium, New York.....	547,541	42,088	
June 17, 1954	Marciano (187½)-Charles (185½) (1st) ..		15	Yankee Stadium, New York.....	543,092	47,585	
Sept. 11, 1924	Wills (217)-Firpo (224½).....		12	Boyle's 30 Acres, Jersey City.....	509,135	70,000	
Sept. 23, 1952	Marciano (184)-Walcott (196).....		KO 13	Municipal Stdm., Phila.....	504,645	40,379	
July 16, 1926	Delaney (166½)-Berlenbach (174¼) (3d) ..		15	Ebbets Field, Brooklyn.....	461,789	49,186	
July 23, 1923	Leonard (134)-Tendler (133½) (2d).....		15	Yankee Stadium, New York.....	452,648	58,519	
July 4, 1919	Dempsey (187)-Willard (245).....		KO 3	Toledo, Ohio.....	452,224	19,650	
June 18, 1941	Louis (199½)-Conn (174) (1st).....		KO 13	Polo Grounds, New York.....	451,743	60,071	
Sept. 24, 1953	Marciano (185)-LaStarza (184¼) (2d) ..		KO 11	Polo Grounds, New York.....	435,820	44,562	
June 21, 1932	Sharkey (205)-Schmeling (188) (2d).....		15	Long Island City Bowl, N. Y.....	432,465	61,863	
June 14, 1934	Max Baer (209½)-Carnera (263¼) (1st) ..		KO 11	Long Island City Bowl, N. Y.....	428,000	56,000	
July 16, 1947	Graziano (154¼)-Zale (159) (2d).....		KO 6	Chicago Stadium.....	422,918	18,547	
June 25, 1952	Maxim (173)-Robinson (157½).....		KO 14	Yankee Stadium, New York.....	421,615	47,983	
Feb. 27, 1929	Sharkey (192)-Stribling (182).....		10	Flamingo Park, Miami Beach, Fla..	405,000	40,000	
July 12, 1923	Firpo (214)-Willard (242).....		KO 8	Boyle's 30 Acres, Jersey City.....	390,837	80,000	
May 12, 1923	Firpo (212)-McAuliffe (200).....		KO 3	Yankee Stadium, New York.....	385,040	31,000	
	Willard (245)-Floyd Johnson (195).....		KO 11				
June 27, 1929	Schmeling (187)- Uzcudun (192½) (1st) ..		15	Yankee Stadium, New York.....	378,902	65,000	
July 27, 1922	Leonard (134½)-Tendler (134¼) (1st) ..		ND 12	Boyle's 30 Acres, Jersey City.....	367,862	54,685	
Sept. 17, 1954	Marciano (187)-Charles (192½) (2d)....		KO 8	Yankee Stadium, New York.....	352,654	34,330	
Mar. 25, 1958	Robinson (159¼)-Basilio (153) (2d).....		15	Chicago Stadium.....	351,955	17,976	

HISTORY OF WORLD HEAVYWEIGHT CHAMPIONSHIP FIGHTS

(Bouts in which title changed hands)

Date	Where held	Winner, weight, age	Loser, weight, age	Rounds	Referee
Sept. 7, 1892	New Orleans, La.	James J. Corbett, 178 (26)	John L. Sullivan, 212 (33)	21	Prof. John Duffy
Mar. 17, 1897	Carson City, Nev.	Bob Fitzsimmons, 167 (34)	James J. Corbett, 183 (30)	KO 14	George Siler
June 9, 1899	Coney Island, N. Y.	(a) James J. Jeffries, 206 (24)	Bob Fitzsimmons, 167 (37)	KO 11	George Siler
Feb. 23, 1906	Los Angeles	(b) Tommy Burns, 180 (24)	Marvin Hart, 188 (29)	20	James J. Jeffries
Dec. 26, 1908	Sydney, N. S. W.	Jack Johnson, 196 (30)	Tommy Burns, 176 (27)	KO 14	Hugh McIntosh
April 5, 1915	Havana, Cuba	Jess Willard, 230 (31)	Jack Johnson, 205½ (37)	KO 26	Jack Welch
July 4, 1919	Toledo, Ohio	Jack Dempsey, 187 (24)	Jess Willard, 245 (35)	KO 3	Ollie Pecord
Sept. 23, 1926	Philadelphia	(c) Gene Tunney, 189½ (28)	Jack Dempsey, 190 (31)	10	Pop Reilly
June 12, 1930	New York	Max Schmeling, 188 (24)	Jack Sharkey, 197 (27)	WF 4	Jim Crowley
June 21, 1932	Long Island City	Jack Sharkey, 205 (29)	Max Schmeling, 188 (26)	15	Gunboat Smith
June 29, 1933	Long Island City	Primo Carnera, 260½ (26)	Jack Sharkey, 201 (30)	KO 6	Arthur Donovan
June 14, 1934	Long Island City	Max Baer, 209½ (25)	Primo Carnera, 263¼ (27)	KO 11	Arthur Donovan
June 13, 1935	Long Island City	Jim Braddock, 193¼ (29)	Max Baer, 209½ (26)	15	Jack McAvoy
June 22, 1937	Chicago	Joe Louis, 197¼ (23)	Jim Braddock, 197 (31)	KO 8	Tommy Thomas
June 22, 1949	Chicago	(d) Ezzard Charles, 181¼ (27)	Joe Walcott, 195½ (35)	15	Davey Miller
Sept. 27, 1950	New York	(e) Ezzard Charles, 184½ (29)	Joe Louis, 218 (36)	15	Mark Conn
July 18, 1951	Pittsburgh	Joe Walcott, 194 (37)	Ezzard Charles, 182 (30)	KO 7	Buck McTiernan
Sept. 23, 1952	Philadelphia	(f) Rocky Marciano, 184 (28)	Joe Walcott, 196 (38)	KO 13	Charley Daggert
Nov. 30, 1956	Chicago	Floyd Patterson, 182¼ (21)	Archie Moore, 187¼ (39)	KO 5	Frank Sikora

(a) Jeffries retired as champion in March 1906. He named Marvin Hart and Jack Root as leading contenders and agreed to referee their fight in Reno, Nev., on July 3, 1906, with the stipulation that he would term the winner the champion. Hart, 190 (28), knocked out Root, 171 (29), in the 12th round. (b) Burns claimed the title after defeating Hart. (c) Tunney retired as champion after defeating Tom Heeney on July 26, 1928. (d) After Louis defeating Hart. (e) Charles won recognition from the National Boxing Association as champion by defeating Walcott. (f) Charles gained undisputed recognition as champion by defeating Louis, who came out of retirement. (g) Retired as champion April 27, 1956.

BARE-KNUCKLE HEAVYWEIGHT CHAMPIONS, 1719-1892

- 1719—Jim Figg
 1734—George Taylor
 1740—Jack Broughton
 1750—Jack Slack
 1760—Bill Stevens
 1761—George Meggs
 1765—Bill Darts
 1777—Harry Sellers
 1780—Jack Harris
 1785—Tom (Jackling) Johnson
 1790—Big Ben Brain
 1792—Daniel Mendoza
 1795—John Jackson (retired)
 1802—Jem Belcher
 1805—Henry Pearce (Game Chicken)
 1808—John Gully (declined title)
 1809—Tom Cribb received belt, not transferable, and cup.
 1824—Tom Spring received four cups; resigned title.
 1825—Jem Ward received belt, not transferable.
 1838—James (Deaf) Burke claimed title.
 1839—William Thompson (Bendigo) beat Burke; claimed championship; received belt from Jem Ward.
 1841—Nick Ward (Jem's brother) beat Ben Caunt, Feb. 2. In return match Caunt beat Nick Ward and received belt by subscription. It was transferable.
 1845—Thompson beat Caunt and got belt.
 1850—Bill Perry (The Tipton Slasher), after fight with Paddock, claimed title.
 1851—Harry Broome won title from Perry.
 1853—Perry claimed title when Broome forfeited £200 to him in a match; retired from ring on Aug. 13.
 1857—Tom Sayers beat Perry for £200 a side and new belt.
 1860—Sayers retired after 42-round draw with John C. Heenan (The Benicia Boy), leaving old belt open for competition.
 1860—Sam Hurst (The Stalybridge Infant) beat Paddock and received belt.
 1861—Jem Mace beat Hurst.
 1862—Mace beat Tom King for £200 a side and the belt.
 1862—King beat Mace and claimed belt. Subsequently gave it up. Declined to meet Mace again. Mace claimed belt.
 1863—King beat Heenan for £1,000 a side.
 1865—Joe Wormald beat Andrew Marsden for £200 a side and belt, which had been claimed by both. Belt was given to Wormald, who forfeited £120 to Mace.
 1866—Mace and Joe Goss fought draw with £200 a side and belt at stake.
 1867—Wormald received £200 forfeit from Ned O'Baldwin and claimed belt when O'Baldwin failed to appear at starting place.
 1867—Mace and O'Baldwin drew; £200 a side; title and belt in abeyance.
 1869—Mike McCool defeated Tom Allen and claimed American championship.
 1870—Mace claimed world title by knocking out Allen in 10 rounds.
 1873—Mace retired and Allen claimed title of world champion by defeating McCool.
 1876—Allen fought Joe Goss, ranked next to Mace in England. Allen was disqualified in the 27th round for fouling and Goss was recognized as world champion under London Prize Ring Rules.
 1880—Paddy Ryan knocked out Goss in the 87th round on May 30, near Colliers Station, W. Va., and became the first American to hold the undisputed world bare knuckle championship.
 1882—John L. Sullivan knocked out Ryan in the 9th round at Mississippi City, Miss., on Feb. 7 and became the last bare knuckle champion.
 1889—Sullivan defeated Jake Kilrain in the last bare knuckle championship fight. The bout, on July 8 at Richburg, Miss., went 75 rounds.

OTHER WORLD BOXING TITLEHOLDERS

LIGHT HEAVYWEIGHT CHAMPIONS

- 1903 —Jack Root, George Gardner
 1903-05—Bob Fitzsimmons
 1905-12—Philadelphia Jack O'Brien (r)
 1912-16—Jack Dillon
 1916-20—Battling Levinsky
 1920-22—Georges Carpentier
 1923 —Battling Siki
 1923-25—Mike McTigue
 1925-26—Paul Berlenbach
 1926-27—Jack Delaney (a)
 1927 —Mike McTigue
 1927-29—Tommy Loughran (a)
 1930 —Jimmy Slattery
 1930-34—Maxie Rosenbloom
 1934-35—Bob Olin
 1935-39—John Henry Lewis (a)
 1939 —Mello Bettina
 1939-41—Billy Conn (a)
 1941 —Anton Christoforidis (NBA)
 1941-48—Gus Lesnevich
 1948-50—Freddie Mills
 1950-52—Joey Maxim
 1952 —Archie Moore

(a)Abandoned title. (r)Retired.

MIDDLEWEIGHT CHAMPIONS

- 1867-72—Tom Chandler
 1872-81—George Rooke
 1881-82—Mike Donovan (r)
 1884-91—Jack (Nonpareil) Dempsey
 1891-97—Bob Fitzsimmons (a)
 1908 —Stanley Ketchel, Billy Papke
 1908-10—Stanley Ketchel (d)
 1913 —Frank Klaus
 1913-14—George Chip
 1914-17—Al McCoy
 1917-20—Mike O'Dowd
 1920-23—Johnny Wilson
 1923-26—Harry Greb
 1926 —Tiger Flowers
 1926-31—Mickey Walker (a)
 1931-41—The National Boxing Association and the New York State Athletic Commission were divided on title holders throughout these years. The following were regarded as champions by one body or the other in this period: Gorilla Jones, Ben Jeby, Marcel Thil, Lou Brouillard, Vince Dundee, Teddy Yarosz, Babe Risko, Freddy Steele, Al Hostak, Solly Krieger, Fred Apostoli, Ceferino Garcia, Ken Overlin, Billy Soose, Tony Zale.

- 1941-47—Tony Zale
 1947-48—Rocky Graziano
 1948 —Tony Zale
 1948-49—Marcel Cerdan
 1949-51—Jake La Motta
 1951 —Ray Robinson, Randy Turpin
 1951-52—Ray Robinson (r)
 1953-55—Carl Olson
 1955-57—Ray Robinson
 1957 —Gene Fullmer, Ray Robinson
 1957-58—Carmen Basilio
 1958 —Ray Robinson

(a)Abandoned title. (d)Died. (r)Retired.

WELTERWEIGHT CHAMPIONS

- 1892-94—Mysterious Billy Smith
 1894-96—Tommy Ryan
 1896 —Kid McCoy (a)
 1896-1900—Mysterious Billy Smith
 1900 —Rube Ferns
 1900-01—Matty Matthews
 1901 —Rube Ferns
 1901-04—Joe Walcott
 1904 —Dixie Kid (a)
 1904-06—Joe Walcott
 1906-07—Honey Mellody
 1907 —Mike (Twin) Sullivan (a)
 1915-19—Ted Lewis
 1919-22—Jack Britton
 1922-26—Mickey Walker
 1926-27—Pete Latzo
 1927-29—Joe Dundee
 1929-30—Jackie Fields
 1930 —Young Jack Thompson
 1930-31—Tommy Freeman
 1931 —Young Jack Thompson
 1931-32—Lou Brouillard
 1932-33—Jackie Fields
 1933 —Young Corbett 3d
 1933-34—Jimmy McLarnin
 1934 —Barney Ross
 1934-35—Jimmy McLarnin
 1935-38—Barney Ross
 1938-40—Henry Armstrong
 1940-41—Fritz Zivic
 1941-46—Freddie Cochrane
 1946 —Marty Servo (r)
 1946-51—Ray Robinson (a)
 1951 —Johnny Bratton (NBA)
 1951-54—Kid Gavilan
 1954-55—Johnny Saxton
 1955 —Tony DeMarco
 1955-56—Carmen Basilio
 1956 —Johnny Saxton
 1956-57—Carmen Basilio (a)
 1958 —Virgil Akins

(a)Abandoned title. (r)Retired.

Famous Firsts in Boxing

First set of boxing rules and first set of boxing gloves: Made by Jack Broughton, 1743.

First glove fight: Between two English boxers, at Aix-la-Chapelle, France, October 8, 1818.

First million-dollar gate: Jack Dempsey vs. Georges Carpentier at Boyle's Thirty Acres, Jersey City, N. J., July 2, 1921 (\$1,789,238).

First round-by-round fight broadcast: Dempsey vs. Carpentier, 1921, J. Andrew White announcer.

First fight on television (publicly screened): Eric Boon vs. Arthur Danahar, Harringay Arena, London, England, February 23, 1939.

LIGHTWEIGHT CHAMPIONS

- 1885-96—Jack McAuliffe*
 1896-99—Kid Lavigne
 1899-02—Frank Erne
 1902-08—Joe Gans
 1908-10—Battling Nelson
 1910-12—Ad Wolgast
 1912-14—Willie Ritchie
 1914-17—Freddy Welsh
 1917-25—Benny Leonard (r)
 1925 —Jimmy Goodrich
 1925-26—Rocky Kansas
 1926-30—Sammy Mandell
 1930 —Al Singer
 1930-33—Tony Canzoneri
 1933-35—Barney Ross (a)
 1935-36—Tony Canzoneri
 1936-38—Lou Ambers
 1938-39—Henry Armstrong
 1939-40—Lou Ambers
 1940-41—Lew Jenkins
 1941-42—Sammy Angott (r)
 1943-47—The National Boxing Association and the New York State Athletic Commission recognized different champions in these years. Title holders, according to the N. Y. Commission, were Beau Jack and Bob Montgomery, and, according to the NBA, Sammy Angott, who made a comeback, Juan Zurita and Ike Williams. Williams defeated Montgomery in 1947 to provide a universal champion.
- 1947-51—Ike Williams
 1951-52—James Carter
 1952 —Lauro Salas
 1952-54—James Carter
 1954 —Paddy DeMarco
 1954-55—James Carter
 1955-56—Wallace Smith
 1956 —Joe Brown

* McAuliffe was champion of America, but never held the world crown, his battle for the world title with Jem Carney of England in 1887 resulting in a 74-round draw.
 (a) Abandoned title. (r) Retired.

FEATHERWEIGHT CHAMPIONS

- 1889 —Dal Hawkins (a)
 1890 —Billy Murphy
 1892-1900—George Dixon
 1900-01—Terry McGovern
 1901 —Young Corbett (a)
 1901-12—Abe Attell
 1912-23—Johnny Kilbane
 1923 —Eugene Ciqui
 1923-25—Johnny Dundee (a)
 1925-27—Louis (Kid) Kaplan (a)
 1927-28—Benny Bass
 1928 —Tony Canzoneri
 1928-29—Andre Routis
 1929-32—Battling Battalino (a)
 1932 —Tommy Paul (NBA); Kid Chocolate (N. Y. Comm.).
 1933-36—Freddie Miller
 1936-37—Petey Sarron
 1937-38—Henry Armstrong (a)
 1938-40—Joey Archibald
 1940-41—Harry Jeffra, Joey Archibald
 1941-42—Chalky Wright
 1942-48—Willie Pep
 1948-49—Sandy Saddler
 1949-50—Willie Pep
 1950-57—Sandy Saddler (r)
 1957 —Kid Bassey

(a) Abandoned title. (r) Retired.

BANTAMWEIGHT CHAMPIONS

- 1890-92—George Dixon (a)
 1894-99—Jimmy Barry (r)
 1899-1900—Terry McGovern (a)
 1901 —Harry Harris (a)
 1902-03—Harry Forbes
 1903-04—Frankie Neil
 1904 —Joe Bowker (a)
 1905-07—Jimmy Walsh (a)
 1910-14—Johnny Coulon
 1914-17—Kid Williams
 1917-20—Pete Herman
 1920-21—Joe Lynch
 1921 —Pete Herman
 1921-22—Johnny Buff
 1922-24—Joe Lynch
 1924 —Abe Goldstein
 1924-25—Eddie (Cannonball) Martin
 1925 —Charlie (Phil) Rosenberg (d)
 1927-28—Bud Taylor (NBA) (a)
 1929-35—Al Brown
 1935-36—Baltazar Sangchili
 1936 —Tony Marino
 1936-37—Sixto Escobar
 1937-38—Harry Jeffra
 1938-40—Sixto Escobar (r)
 1940-42—Lou Salica
 1942-47—Manuel Ortiz
 1947 —Harold Dade
 1947-50—Manuel Ortiz
 1950-52—Vic Toweel
 1952-54—Jimmy Carruthers (r)
 1954-56—Robert Cohen
 1956-57—Mario D'Agata
 1956 —Raul Macias (NBA)
 1957 —Alphonse Halimi

(a) Abandoned title. (d) Deprived of title when unable to make weight for championship bout. (r) Retired.

FLYWEIGHT CHAMPIONS

- 1916-23—Jimmy Wilde
 1923-25—Pancho Villa (d)
 1925 —Frankie Genaro
 1925-27—Fidel La Barba (r)
 1927-31—The NBA and the New York Commission recognized different champions in these years. Claimants at various times were Corporal Izzy Schwartz, Frankie Genaro, Emile Spider Pladner, Midget Wolgast and Young Perez.
- 1932-35—Jackie Brown
 1935-38—Benny Lynch (a)
 1939 —Peter Kane (a)
 1943-47—Jackie Paterson (d)
 1947-50—Rinty Monaghan (r)
 1950 —Terry Allen
 1950-52—Dado Marino
 1952-54—Yoshio Shirai
 1954 —Pascual Perez

(a) Abandoned title. (d) Died. (r) Retired.

PROFESSIONAL WEIGHT LIMITS

Flyweight	118
Bantamweight	118
Featherweight	126
Lightweight	135
Welterweight	147
Middleweight	160
Light heavyweight	175
Heavyweight	over 175

ICE (FIGURE) SKATING

WORLD CHAMPIONS

Year	Men	Women
1896	Gilbert Fuchs, Germany	
1897	Gustav Hugel, Austria	
1898	H. Grenander, Sweden	
1899	Gustav Hugel, Austria	
1900	Gustav Hugel, Austria	
1901	Ulrich Salchow, Sweden	
1902	Ulrich Salchow, Sweden	
1903	Ulrich Salchow, Sweden	
1904	Ulrich Salchow, Sweden	
1905	Ulrich Salchow, Sweden	
1906	Gilbert Fuchs, Germany	Madge Syers, England
1907	Ulrich Salchow, Sweden	Madge Syers, England
1908	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1909	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1910	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1911	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1912	Fritz Kachler, Austria	Meray Horvath, Hungary
1913	Fritz Kachler, Austria	Meray Horvath, Hungary
1914	Gosta Sandahl, Sweden	Meray Horvath, Hungary
1915-21	No competition	No competition
1922	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1923	Fritz Kachler, Austria	Mrs. Szabo Plank, Austria
1924	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1925	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1926	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1927	Willi Boeckl, Austria	Sonja Henie, Norway
1928	Willi Boeckl, Austria	Sonja Henie, Norway
1929	Gillis Grafstrom, Sweden	Sonja Henie, Norway
1930	Karl Schafer, Austria	Sonja Henie, Norway
1931	Karl Schafer, Austria	Sonja Henie, Norway
1932	Karl Schafer, Austria	Sonja Henie, Norway
1933	Karl Schafer, Austria	Sonja Henie, Norway
1934	Karl Schafer, Austria	Sonja Henie, Norway
1935	Karl Schafer, Austria	Sonja Henie, Norway
1936	Karl Schafer, Austria	Sonja Henie, Norway
1937	Felix Kaspar, Austria	Cecilia Colledge, England
1938	Felix Kaspar, Austria	Megan Taylor, England
1939	Grham Sharp, England	Megan Taylor, England
1940-46	No competition	No competition
1947	Hans Gerschweiler, Switzerland	Barbara A. Scott, Canada
1948	Richard Button, U. S.	Barbara A. Scott, Canada
1949	Richard Button, U. S.	Aja Vrzanova, Czechoslovakia
		Aja Vrzanova, Czech.
1950	Richard Button, U. S.	Jeannette Altwegg, England
1951	Richard Button, U. S.	
1952	Richard Button, U. S.	Jacqueline du Bief, France

1953	Hayes A. Jenkins, U. S.	Tenley Albright, U. S.
1954	Hayes A. Jenkins, U. S.	Gundi Busch, Germany
1955	Hayes A. Jenkins, U. S.	Tenley Albright, U. S.
1956	Hayes A. Jenkins, U. S.	Carol Heiss, U. S.
1957	David Jenkins, U. S.	Carol Heiss, U. S.

UNITED STATES CHAMPIONS

Year	Men	Women
1914	Norman Scott	Theresa Weld
1915-17	No competition	No competition
1918	Nathaniel Niles	Mrs. R. S. Beresford
1919	No competition	No competition
1920	Sherwin Badger	Theresa Weld
1921	Sherwin Badger	Theresa Blanchard
1922	Sherwin Badger	Theresa Blanchard
1923	Sherwin Badger	Theresa Blanchard
1924	Sherwin Badger	Theresa Blanchard
1925	Nathaniel Niles	Beatrix Loughran
1926	C. I. Christenson	Beatrix Loughran
1927	Nathaniel Niles	Beatrix Loughran
1928	Roger Turner	Maribel Y. Vinson
1929	Roger Turner	Maribel Y. Vinson
1930	Roger Turner	Maribel Y. Vinson
1931	Roger Turner	Maribel Y. Vinson
1932	Roger Turner	Maribel Y. Vinson
1933	Roger Turner	Maribel Y. Vinson
1934	Roger Turner	Suzanne Davis
1935	Robin Lee	Maribel Y. Vinson
1936	Robin Lee	Maribel Y. Vinson
1937	Robin Lee	Maribel Y. Vinson
1938	Robin Lee	Joan Tozzer
1939	Robin Lee	Joan Tozzer
1940	Eugene Turner	Joan Tozzer
1941	Eugene Turner	Jane Vaughn
1942	Bobby Specht	Jane V. Sullivan
1943	Arthur R. Vaughn, Jr.	Gretchen Merrill
1944	No competition	Gretchen Merrill
1945	No competition	Gretchen Merrill
1946	Richard Button	Gretchen Merrill
1947	Richard Button	Gretchen Merrill
1948	Richard Button	Gretchen Merrill
1949	Richard Button	Yvonne Sherman
1950	Richard Button	Yvonne Sherman
1951	Richard Button	Sonya Klopfer
1952	Richard Button	Tenley Albright
1953	Hayes A. Jenkins	Tenley Albright
1954	Hayes A. Jenkins	Tenley Albright
1955	Hayes A. Jenkins	Tenley Albright
1956	Hayes A. Jenkins	Tenley Albright
1957	David Jenkins	Carol Heiss

Marciano Was Unbeaten as a Pro

Rocky Marciano, heavyweight boxing champion of the world and winner of each of his 49 fights as a professional, announced his retirement from the ring on April 27, 1956. He is the only heavyweight champion ever to retire without losing a professional fight or even boxing to a draw.

Marciano won the title on Sept. 23, 1952, in Philadelphia, by knocking out Joe Walcott in the 13th round. He defended his crown six times. His gross purses for his 49 professional bouts have been estimated at \$2,000,000.

Marciano was born in Brockton, Mass., on Sept. 1, 1924.

Of his 49 victories, the retired champion scored 43 by knockouts, more than half of them within three rounds.

These were Marciano's championship fights:

*Sept. 23, 1952—Joe Walcott, Philadelphia.....	KO 13
May 15, 1953—Joe Walcott, Chicago.....	KO 1
Sept. 24, 1953—Roland LaStarza, New York.....	KO 11
June 17, 1954—Ezzard Charles, New York.....	W 15
Sept. 17, 1954—Ezzard Charles, New York.....	KO 8
May 16, 1955—Don Cockell, San Francisco.....	KO 9
Sept. 21, 1955—Archie Moore, New York.....	KO 9

* Won title.

ICE (SPEED) SKATING

WORLD RECORDS

Source: International Skating Union (I.S.U.).

MEN

Meters	Time	Recordholder and country	Where made	Date
500	0:40.2	Eugeniy Grishin, U.S.S.R.	Lake Misurina, Italy	Jan. 22, 1956
	0:40.2	Eugeniy Grishin, U.S.S.R.	Lake Misurina, Italy	Jan. 28, 1956
1,000	1:22.8	Eugeniy Grishin, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:08.6	Eugeniy Grishin, U.S.S.R.	Lake Misurina, Italy	Jan. 30, 1956
	2:08.6	Jurij Michailov, U.S.S.R.	Lake Misurina, Italy	Jan. 30, 1956
3,000	4:40.2	Anton Huiskes, Holland	Davos, Switzerland	Jan. 24, 1953
5,000	7:45.6	Boris Shilkov, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9, 1955
10,000	16:32.6	Hjalmar Andersen, Norway	Hamar, Norway	Feb. 10, 1952
All-around	184.638 pts.	Dimitry Sakunenko, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 9-10, 1955

WOMEN

500	0:45.6	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 11, 1955
1,000	1:33.4	Tamara Rilova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 12, 1955
1,500	2:25.5	Khalida Schegolewa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 30, 1953
3,000	5:13.8	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 23, 1953
5,000	9:01.6	Rimma Zhukowa, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 24, 1953
All-around	203.299 pts.	Galina Romanova, U.S.S.R.	Alma Ata, U.S.S.R.	Jan. 26-27, 1958

NATIONAL SENIOR AMATEUR RECORDS

(Made in competition)

Source: Amateur Skating Union of the United States.

MEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd...	18.1	Robert Fitzgerald	Minneapolis	1/10/43
440 yd...	35.4	Charles Gorman	Lake Placid	2/14/27
	35.4	Ken Bartholomew	St. Paul	1/25/42
	35.4	Robert Fitzgerald	Minneapolis	2/15/42
880 yd...	1:14.2	Robert Fitzgerald	Minneapolis	1/7/45
¼ mi...	1:55.8	Clas Thunberg	Saranac Lake	2/15/26
1 mi...	2:38.2	Clas Thunberg	Lake Placid	2/12/26
*1 mi...	2:29.7	Del Lamb	Oslo	2/19/48
2 mi...	5:33.8	Eddie Schroeder	Minneapolis	1/30/34
3 mi...	8:19.6	Ross Robinson	Lake Placid	2/14/30
5 mi...	14:30.4	Ross Robinson	Lake Placid	2/12/27

* Made on 400-meter track in Norway.

BEST TIMES BY AMERICANS
AT OLYMPIC DISTANCES

500 m...	41.3	William Carow	Lake Misurina	1/22/56
			Italy	
1,500 m...	2:15.2	Pat McNamara	Lake Misurina	1/30/56
			Italy	
5,000 m...	8:10.6	Pat McNamara	Lake Misurina	1/29/56
			Italy	
10,000 m...	17:45.9	Eddie Schroeder		

WOMEN'S OUTDOOR

220 yd...	20.2	Maddy Horn	Saranac Lake	2/11/39
		Pat Gibson	St. Paul	1/30/55
440 yd...	39.4	L. Neitzel	Minneapolis	2/3/29
880 yd...	1:25.9	Maddy Horn	Escanaba*	1/13/40
¼ mi...	2:17	Dot Franey	Minneapolis	1/16/37
1 mi...	3:06.1	Maddy Horn	Oconomowoc†	1/24/37

* Michigan. † Wisconsin.

MEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd...	18	F. Robson	Boston	1/13/11
¼ mi...	23.8	C. Gorman	St. John*	3/1/27
440 yd...	36.8	C. Gorman	St. John	2/27/25
880 yd...	1:15.6	B. O'Sickey	Pittsburgh	3/1/16
¼ mi...	2:00.4	P. Johnston	Cleveland	3/2/28
1 mi...	2:41.2	Morris Wood-		
		F. Robson	Pittsburgh	2/13/04
1½ mi...	4:25	Edmund Lamy	Cleveland	1/27/10
2 mi...	5:54.8	R. Heckenbach	St. Paul	1/30/37
3 mi...	8:58.8	P. Johnston	Pittsburgh	2/19/27
4 mi...	13:41.8	Joe Moore	Brooklyn	2/7/27
5 mi...	15:42.2	F. Stack	Chicago	2/8/30

* New Brunswick, Canada.

FOR TRACKS 13 LAPS AND OVER

440 yd...	39	Robert Olson	Edmonton	4/23-25/43
880 yd...	1:21.7	T. G. Hutchinson	Colo. Springs	4/23/49
¼ mi...	2:06.2	E. Babayan	Colo. Springs	2/18/50
1 mi...	2:49.5	Edgar Dame	Edmonton	4/23-25/53
2 mi...	6:02.3	Edgar Dame	E. Lansing	3/28-29/52

WOMEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

220 yd...	21.6	Dot Franey	St. Paul	2/15/36
¼ mi...	31.0	Dot Franey	St. Louis	2/25/33
440 yd...	41.6	Dot Franey	St. Paul	2/16/36
880 yd...	1:26.7	B. M. DeSchepper	Champaign	Mar. '54
¼ mi...	2:16.8	Jean Ashworth	Champaign	Mar. '57
1 mi...		J. Omelenchuk	Champaign	3/9/58

FOR TRACKS 13 LAPS AND OVER

440 yd...	42	B. M. DeSchepper	Edmonton	4/23-25/53
½ mi...	1:26.4	B. M. DeSchepper	Milwaukee	3/5-6/55
¾ mi...	2:17.3	Pat Underhill	Milwaukee	3/5-6/55
1 mi...	3:07.2	Pat Underhill	Edmonton	4/23-25/53

ICE HOCKEY

ICE HOCKEY, by birth and upbringing a Canadian game, is an offshoot of field hockey. Some historians state that the first ice hockey game was played in Montreal in December, 1879, between two teams composed almost exclusively of McGill University students, but others assert that Kingston, Ont., or Halifax, N. S., were scenes of earlier hockey games. In the Montreal game of 1879 there were fifteen players on a side and they used an assortment of crude sticks to keep the puck in motion. Early rules allowed nine men on a side but the number was reduced to seven in 1886 and finally reduced to six, the standard of today.

The first governing body of the sport was the Amateur Hockey Association of Canada, organized in 1887. In the winter of 1894-95 a group of college students from the United States visited Canada, saw hockey played, became enthused over the game and introduced it as a winter sport when they returned home. This was the

start of hockey in the United States. The first professional league was the International Hockey League that operated, strangely enough, not in Canada but in northern Michigan in 1904-06 and included as players such famous stars as Cyclone Taylor and Hod Stuart, later included in the Hockey Hall of Fame.

Until 1910, professionals and amateurs were allowed to play together on "mixed teams," but this arrangement ended with the formation of the first "big league," the National Hockey Association, in eastern Canada in 1910. The Pacific Coast League, to provide professional hockey in the West, was organized in 1911 with Seattle (and later other American cities) included in the circuit. The National Hockey League replaced the National Hockey Association in 1917. Boston, in 1924, was the first American city to join that circuit. The Stanley Cup, top trophy of hockey, was competed for by "mixed teams" from 1894 to 1910, thereafter by professionals.

Professional Statistics STANLEY CUP WINNERS

Emblematic of world professional championship.

1894—Montreal A. A. A	1910—Montreal Wanderers	1927—Ottawa Senators	1944—Montreal Canadiens
1895—Montreal Victorias	1911—Ottawa Senators	1928—N. Y. Rangers	1945—Toronto Maple Leafs
1896—Winnipeg Victorias	1912—Quebec Bulldogs	1929—Boston Bruins	1946—Montreal Canadiens
1897—Montreal Victorias	1913—Quebec Bulldogs	1930—Montreal Canadiens	1947—Toronto Maple Leafs
1898—Montreal Victorias	1914—Toronto	1931—Montreal Canadiens	1948—Toronto Maple Leafs
1899—Montreal Victorias	1915—Vancouver Millionaires	1932—Toronto Maple Leafs	1949—Toronto Maple Leafs
1900—Montreal Shamrocks	1916—Montreal Canadiens	1933—N. Y. Rangers	1950—Detroit Red Wings
1901—Winnipeg Victorias	1917—Seattle Metropolitans	1934—Chicago Black Hawks	1951—Toronto Maple Leafs
1902—Montreal A. A. A.	1918—Toronto Arenas	1935—Montreal Maroons	1952—Detroit Red Wings
1903—Ottawa Silver Seven	1919—Series unfinished†	1936—Detroit Red Wings	1953—Montreal Canadiens
1904—Ottawa Silver Seven	1920—Ottawa Senators	1937—Detroit Red Wings	1954—Detroit Red Wings
1905—Ottawa Silver Seven	1921—Ottawa Senators	1938—Chicago Black Hawks	1955—Detroit Red Wings
1906—Montreal Wanderers	1922—Toronto St. Patricks	1939—Boston Bruins	1956—Montreal Canadiens
1907—Kenora Thistles	1923—Ottawa Senators	1940—N. Y. Rangers	1957—Montreal Canadiens
1907—Mont. Wanderers*	1924—Montreal Canadiens	1941—Boston Bruins	
1908—Montreal Wanderers	1925—Victoria Cougars	1942—Toronto Maple Leafs	
1909—Ottawa Senators	1926—Montreal Maroons	1943—Detroit Red Wings	

* March.
† The Montreal Canadiens and Seattle, P.C.H.L. champions, had played five games at Seattle, Wash., when an influenza epidemic (which took the life of Joe Hall of the Canadiens) caused the Department of Health to stop the series. Each team won two games, with one contest ending in a tie.

MOST VALUABLE PLAYER

The Hart Trophy

Awarded annually to the player voted most valuable to his team in the regular N. H. L. season.

1924—Frank Nighbor, Ottawa	1942—Tom Anderson, New York Americans
1925—Billy Burch, Hamilton	1943—Bill Cowley, Boston
1926—Nels Stewart, Montreal Maroons	1944—Babe Pratt, Toronto
1927—Herb Gardiner, Montreal Canadiens	1945—Elmer Lach, Montreal Canadiens
1928—Howie Morenz, Montreal Canadiens	1946—Max Bentley, Chicago
1929—Roy Worters, New York Americans	1947—Maurice Richard, Montreal Canadiens
1930—Nels Stewart, Montreal Maroons	1948—Buddy O'Connor, New York Rangers
1931-32—Howie Morenz, Montreal Canadiens	1949—Sid Abel, Detroit
1933—Eddie Shore, Boston	1950—Chuck Rayner, New York Rangers
1934—Aurel Joliat, Montreal Canadiens	1951—Milt Schmidt, Boston
1935-36—Eddie Shore, Boston	1952-53—Gordon Howe, Detroit
1937—Babe Siebert, Montreal Canadiens	1954—Al Rollins, Chicago
1938—Eddie Shore, Boston	1955—Ted Kennedy, Toronto
1939—Toe Blake, Montreal Canadiens	1956—Jean Beliveau, Montreal Canadiens
1940—Ebbie Goodfellow, Detroit	1957—Gordon Howe, Detroit
1941—Bill Cowley, Boston	

SOCCER

Source: Flannery News Bureau of New York.

National Challenge Cup

Emblematic of U. S. Championship
(Senior amateur and professional elevens)

- 1914 Brooklyn (N. Y.) Field Club
- 1915-16 Bethlehem (Pa.) Steel Co. F. C.
- 1917 Fall River (Mass.) Rovers
- 1918-19 Bethlehem (Pa.) Steel Co. F. C.
- 1920 Ben Miller F. C., St. Louis, Mo.
- 1921 Robins Dry Dock F. C., Brooklyn, N. Y.
- 1922 Scullin Steel F. C., St. Louis, Mo.
- 1923 Paterson (N. J.) F. C.
- 1924 Fall River (Mass.) F. C.
- 1925 Shawsheen S. C., Andover, Mass.
- 1926 Bethlehem (Pa.) Steel Co. F. C.
- 1927 Fall River (Mass.) F. C.
- 1928 New York Nationals S. C.
- 1929 Hakoah All-Stars, New York
- 1930-31 Fall River (Mass.) F. C.
- 1932 New Bedford (Mass.) F. C.
- 1933-34 Stix, Baer & Fuller F. C., St. Louis, Mo.
- 1935 Central Breweries S. C., St. Louis, Mo.
- 1936 First German American S. C., Philadelphia
- 1937 New York Americans S. C.
- 1938 Sparta A. B. A., Chicago, Ill.
- 1939 St. Mary's Celtic S. C., New York
- 1940 No official champion*
- 1941 Pawtucket (R. I.) F. C.
- 1942 Gallatin S. C., Pittsburgh
- 1943-44 Brooklyn (N. Y.) Hispano S. C.
- 1945 Brookhattan S. C., New York
- 1946 Vikings, Chicago
- 1947 Ponta Delgada F. C., Fall River, Mass.
- 1948 Joe Simpkins S. C., St. Louis, Mo.
- 1949 Morgan (Pa.) S. C.
- 1950 Joe Simpkins S. C., St. Louis, Mo.
- 1951 German-Hungarian S. C., New York
- 1952 Harmarville (Pa.) S. C.
- 1953 Chicago Falcons
- 1954 New York Americans
- 1955 Eintracht S. C., New York
- 1956 Harmarville (Pa.) Hurricanes
- 1957 Kutis, St. Louis

* Finalists: Baltimore (Md.) S. C. and Sparta A. B. A. Chicago, Ill.

National Amateur Challenge Cup

- 1923 No official champion*
- 1924 Fleisher Yarn F. C., Philadelphia
- 1925 Toledo (Ohio) F. C.
- 1926 Defenders F. C., New Bedford, Mass.
- 1927 Heidelberg (Pa.) F. C.
- 1928 No official champion†
- 1929 Heidelberg (Pa.) F. C.
- 1930 Raffies F. C., Fall River, Mass.
- 1931 Goodyear F. C., Akron, Ohio
- 1932 Shamrock S. C., Cleveland, Ohio
- 1933 German American S. C., Philadelphia
- 1934 German American S. C., Philadelphia
- 1935 W. W. Riehl S. C., Castle Shannon, Pa.
- 1936 First German S. C., Brooklyn, N. Y.
- 1937 Highlander F. C., Trenton, N. J.
- 1938 Ponta Delgada F. C., Fall River, Mass.
- 1939 St. Michael's A. C., Fall River, Mass.
- 1940 Morgan-Strasser S. C., Morgan, Pa.
- 1941 Fall River (Mass.) S. C.
- 1942 Fall River (Mass.) S. C.
- 1943 Morgan-Strasser S. C., Morgan, Pa.
- 1944 Eintracht S. C., New York
- 1945 Eintracht S. C., New York
- 1946 Ponta Delgada F. C., Fall River, Mass.
- 1947 Ponta Delgada F. C., Fall River, Mass.
- 1948 Ponta Delgada F. C., Fall River, Mass.
- 1949 Elizabeth (N. J.) Sport Club
- 1950 Ponta Delgada F. C., Fall River, Mass.
- 1951 German-Hungarian S. C., New York
- 1952 St. Louis Raiders
- 1953 Ponta Delgada, Fall River, Mass.
- 1954 Beadling (Pa.) S. C.
- 1955 Heidelberg (Pa.) Tornadoes
- 1956 Kutis, St. Louis
- 1957 Kutis, St. Louis

* Medals to semifinalists: Fleisher Yarn F. C., Philadelphia; Roxbury (Mass.) F. C.; Jeannette (Pa.) F. C. Swedish American A. A., Chicago, Ill. † Finalists: Powers-Hudson-Essex F. C., Fall River, Mass.; and Swedish American A. C., Detroit, Mich.

CYCLING

Source: Otto Elsele, Racing Editor, *American Bicyclist*.

NATIONAL AMATEUR CHAMPIONS

Year	Winner	Where held	Year	Winner	Where held
1921	Arthur Nieminsky, New York.....	Washington, D. C.	1941	Marvin Thomson, Illinois.....	Pasadena, Calif.
1922	Carl Hambacher, New Jersey.....	Atlantic City	1945	Ted Smith, New York.....	Chicago
1923	Charles Barclay, California.....	Chicago	1946	Don Hester, California.....	Columbus
1924	Charlie Winter, New York.....	Buffalo	1947	Ted Smith, New York.....	Philadelphia
1925	Edward Merkner, Illinois.....	St. Louis	1948	Ted Smith, New York.....	Kenosha, Wis.
1926	Edward Merkner, Illinois.....	Philadelphia	1949	James Lauf, Maryland.....	San Diego, Calif.
1927	Jimmy Walthour, Jr., New York.....	Louisville	1950	Robert Pfarr, Wisconsin.....	New Brunswick
1928	R. J. Connor, District of Columbia..	Kenosha, Wis.	1951	Gus Gatto, California.....	Columbus
1929	Sergio Matteini, New York.....	Newark, N. J.	1952	Steve Hromjak, Ohio.....	New Brunswick
1930	Bobby Thomas, Wisconsin.....	Keonsha, Wis.	1953	Ronald Rhoads, California.....	St. Louis
1935	Cecil Hursey, Georgia.....	Atlantic City	1954	Jack Disney, California.....	Minneapolis
1936	Jackie Simes, New Jersey.....	St. Louis	1955	Jack Disney, California.....	New York
1937	Charles Bergna, New Jersey.....	Buffalo	1956	Jack Disney, California.....	Orlando, Fla.
1939	Martin Deras, California.....	Columbus	1957	Jack Disney, California.....	Kenosha, Wis.
1940	Furman Kugler, New Jersey.....	Detroit			

FENCING

Source: Amateur Fencers League of America.

NATIONAL CHAMPIONS

Year	Foil	Épée	Saber	Women's foil ^A
1892	W. S. O'Connor	B. F. O'Connor	R. O. Haubold	
1893	W. T. Heintz	G. M. Hammond	G. M. Hammond	
1894	C. G. Bothner	R. O. Haubold	G. M. Hammond	
1895	A. V. Z. Post	C. G. Bothner	C. G. Bothner	
1896	G. Kavanaugh	A. V. Z. Post	C. G. Bothner	
1897	C. G. Bothner	C. G. Bothner	C. G. Bothner	
1899	G. Kavanaugh	M. Diaz	G. Kavanaugh	
1900	F. Townsend	W. D. Lyon	J. L. Erving	
1901	C. Tatham	C. Tatham	A. V. Z. Post	
1902	J. P. Parker	C. Tatham	A. V. Z. Post	
1903	F. Townsend	C. Tatham	A. V. Z. Post	
1904	C. G. Bothner	C. G. Bothner	A. G. Anderson	
1905	C. G. Bothner	W. S. O'Connor	K. B. Johnson	
1906	S. D. Breckinridge	W. Grebe	A. G. Anderson	
1907	C. Waldbott	W. D. Lyon	A. G. Anderson	
1908	W. L. Bowman	P. Benzenberg	G. W. Postgate	
1909	O. A. Dickinson	A. De La Poer	A. E. Sauer	
1910	G. K. Bainbridge	A. De La Poer	J. T. Shaw	
1911	G. H. Breed	G. H. Breed	A. G. Anderson	
1912	S. Hall	A. V. Z. Post	C. A. Bill	A. Baylis
1913	P. J. Meylan	A. E. Sauer	A. G. Anderson	Mrs. W. H. Dewar
1914	S. D. Breckinridge	F. W. Allen	W. Von Blijenburgh	M. Stimson
1915	O. A. Dickinson	J. A. MacLaughlin	S. Hall	J. Pyle
1916	A. E. Sauer	W. H. Russell	S. Hall	Mrs. C. H. Woorhees
1917	S. Hall	L. G. Nunes	A. S. Lyon	F. Walton
1918	No competition			
1919	S. Hall	W. H. Russell	A. S. Lyon	No competition
1920	S. Hall	R. W. Dutcher	S. Hall	A. Gehrig
1921	F. W. Honeycutt	C. R. McPherson	C. R. McPherson	A. Gehrig
1922	H. M. Raynor	L. G. Nunes	L. G. Nunes	A. Gehrig
1923	R. Peroy	G. C. Calnan	L. M. Schoonmaker	A. Gehrig
1924	L. G. Nunes	L. G. Nunes	J. E. Gignoux	Mrs. C. H. Hopper
1925	G. C. Calnan	W. H. Russell	J. Vince	Mrs. L. M. Schoonmaker
1926	G. C. Calnan	L. G. Nunes	L. G. Nunes	Mrs. L. M. Schoonmaker
1927	G. C. Calnan	H. Van Buskirk	N. Muray	S. Stern
1928	G. C. Calnan	L. G. Nunes	N. Muray	M. Lloyd
1929	J. L. Lewis	F. S. Righeimer	L. G. Nunes	Mrs. L. M. Schoonmaker
1930	G. C. Calnan	M. Pasche	N. C. Armitage	Mrs. H. Van Buskirk
1931	G. C. Calnan	M. A. de Capriles	J. R. Huffman	M. Lloyd
1932	J. L. Lewis	L. G. Nunes	J. R. Huffman	D. Locke
1933	J. L. Lewis	G. M. Heiss	J. R. Huffman	D. Locke
1934	H. V. Alessandroni	G. M. Heiss	N. C. Armitage	H. Mayer
1935	J. L. Lewis	T. J. Sands	N. C. Armitage	H. Mayer
1936	H. V. Alessandroni	G. M. Heiss	N. C. Armitage	Mrs. J. de Tuscan
1937	J. L. Lewis	T. J. Sands	J. R. Huffman	H. Mayer
1938	D. Every	J. R. de Capriles	J. R. Huffman	H. Mayer
1939	N. Lewis	L. Tingley	N. C. Armitage	H. Mayer
1940	D. Every	F. W. Siebert	N. C. Armitage	H. Mroczkowska]
1941	D. Cetrulo	G. M. Heiss	N. C. Armitage	H. Mayer
1942	W. Dow	H. Santos	N. C. Armitage	H. Mayer
1943	W. Dow	R. Driscoll	N. C. Armitage	H. Mroczkowska
1944	A. Snyder	M. A. de Capriles	Tibor Nyilas	M. Dalton
1945	D. Every	M. Gilman	N. C. Armitage	M. Cerra
1946	J. R. de Capriles	A. Wolff	Tibor Nyilas	H. Mayer
1947	Dean Cetrulo	James Strauch	James Flynn	Mrs. Helena Dow
1948	Nathaniel Lubell	Norman Lewis	Dean Cetrulo	Mrs. Helena Dow
1949	Daniel Bukantz	Norman Lewis	Umberto Martino	Polly Craus
1950	Silvio Giolito	Norman Lewis	Tibor Nyilas	Janice-Lee York
1951	Silvio Giolito	J. R. de Capriles	Tibor Nyilas	Janice-Lee York
1952	Daniel Bukantz	Abelardo Menendez	Tibor Nyilas	Mrs. Maxine Mitchell
1953	Daniel Bukantz	Donald Thompson	Tibor Nyilas	Paula Sweeney
1954	Joseph L. Lewis	Sewell Shurtz	George Worth	Mrs. Maxine Mitchell
1955	Albert Axelrod	Abram Cohen	Richard Dyer	Mrs. Maxine Mitchell
1956	Sewall Shurtz	Abram Cohen	Tibor Nyilas	Janice Lee Romary
1957	Daniel Bukantz	Richard Berry	Daniel Magay	Janice Lee Romary

SWIMMING

THERE IS THE ancient tale of Leander of Abydos swimming the Hellespont nightly to call on Helen of Sestos but nobody kept the time on his trips. However, Lord Byron swam one leg of the old Leander course, Sestos to Abydos, on May 3, 1810, in 1 hour 10 minutes. The famous British poet was a noted swimmer and once, in an endurance trial at Venice, was in the water for 4 hours 10 minutes. Distance swimming was the early type of competition. Captain Matthew Webb achieved fame by being the first to swim the English Channel—Dover to Calais—in August, 1875, in 21 hours 45 minutes. Many other swimmers, men and women, have conquered the

Channel since that time. Gertrude Ederle, of New York City, was the first woman to accomplish the feat. Miss Ederle swam the Channel Aug. 6, 1926, in 14 hours 34 minutes, breaking the existing record at that time. Since then the record has been lowered by a number of men and women.

Regular competition at short as well as long distances and indoor as well as outdoor came with the development of such organizations as the Amateur Athletic Union and the building of indoor and outdoor swimming pools. Swimming has been on the Olympic program since the start of the modern Olympic Games at Athens in 1896.

WORLD RECORDS

In a move to end confusion over world records, the International Amateur Swimming Federation (F.I.N.A.) began in 1957 to recognize only those marks which are made in 50-meter or 55-yard pools. As of May 1, 1957, all previously recognized records established in pools of other lengths were wiped out. Some of these were replaced when the F.I.N.A. certified new records later in 1957, and again in 1958, but others continued open.

Where no record yet has been authorized for a standard distance, the table of world records below lists the mark as "vacant." The time given in such a case is the slowest the F.I.N.A. will consider for record application for the event.

Men

FREE STYLE

Distance	Record	Holder	Country	Where Made	Date
100 meters	0:54.6	John Devitt	Australia	Brisbane	Jan. 28, 1957
110 yards	0:55.2	John Devitt	Australia	Sydney	Jan. 19, 1957
200 meters	2:03	Tsuyoshi Yamanaka	Japan	Osaka	Aug. 22, 1958
220 yards	2:03.2	Jon Konrads	Australia	Sydney	Mar. 5, 1958
400 meters	4:21.8	Jon Konrads	Australia	Melbourne	Feb. 18, 1958
440 yards	4:21.8	Jon Konrads	Australia	Melbourne	Feb. 18, 1958
800 meters	9:14.5	Jon Konrads	Australia	Melbourne	Feb. 22, 1958
880 yards	9:14.5	Jon Konrads	Australia	Melbourne	Feb. 22, 1958
1,500 meters	17:28.7	Jon Konrads	Australia	Melbourne	Feb. 22, 1958
1,650 yards	17:28.7	Jon Konrads	Australia	Melbourne	Feb. 22, 1958

BREASTSTROKE

100 meters	1:11.5	W. Minaschkin	U.S.S.R.	Leipzig	Sept. 15, 1958
110 yards	1:12.4	Terry Gathercole	Australia	Townsville	June 28, 1958
200 meters	2:36.5	Terry Gathercole	Australia	Townsville	June 28, 1958
220 yards	2:36.5	Terry Gathercole	Australia	Townsville	June 28, 1958

BUTTERFLY

100 meters	1:00.1	Takashi Ishimoto	Japan	Los Angeles	June 29, 1958
110 yards	1:03.2	Tim Jecko	United States	New London	Aug. 14, 1958
200 meters	(vacant—2:19.0)				
220 yards	(vacant—2:20.0)				

BACKSTROKE

100 meters	1:01.5	John Monckton	Australia	Melbourne	Feb. 15, 1958
110 yards	1:01.5	John Monckton	Australia	Melbourne	Feb. 15, 1958
200 meters	2:18.4	John Monckton	Australia	Melbourne	Feb. 18, 1958
220 yards	2:18.4	John Monckton	Australia	Melbourne	Feb. 18, 1958

INDIVIDUAL MEDLEY

400 meters	5:12.9	V. Stroujanov	U.S.S.R.	Moscow	Oct. 20, 1958
440 yards	(vacant—5:24.0)				

FREE STYLE RELAYS

Distance	Record	Holder	Country	Where Made	Date
400 meters	3:46.3	National Team	Australia	Birsbane	Mar. 3, 1958
		(Gary Chapman, Jon Konrads, Geoffrey Shipton, John Devitt)			
440 yards	3:47.3	National Team	Australia	Sydney	Feb. 9, 1958
		(Gary Chapman, Jon Konrads, Geoffrey Shipton, John Devitt)			
800 meters	8:23.6	National Team	Australia	Melbourne	Dec. 3, 1956
		(Kevin O'Halloran, John Devitt, Murray Rose, Jon Henricks)			
880 yards	8:24.5	National Team	Australia	Sydney	Mar. 5, 1958
		(Jon Konrads, Graham Hamilton, John Devitt, Gary Chapman)			

MEDLEY RELAYS**(Back, Breast, Butterfly, Free Style)**

400 meters	4:10.4	National Team	Australia	Osaka	Aug. 22, 1958
		(John Monckton, Terry Gathercole, Brian Wilkinson, John Devitt)			
440 yards	4:14.2	National Team	Australia	Cardiff	July 25, 1958
		(John Monckton, Terry Gathercole, Brian Wilkinson, John Devitt)			

Women**FREE STYLE**

100 meters	1:01.2	Dawn Fraser	Australia	Schiedam	Aug. 10, 1958
110 yards	1:01.4	Dawn Fraser	Australia	Cardiff	July 21, 1958
200 meters	2:14.7	Dawn Fraser	Australia	Melbourne	Feb. 22, 1958
220 yards	2:14.7	Dawn Fraser	Australia	Melbourne	Feb. 22, 1958
400 meters	(vacant—4:47.2)				
440 yards	4:48.6	Lorraine Crapp	Australia	Sydney	Oct. 20, 1956
800 meters	10:11.8	Ilse Konrads	Australia	Townsville	June 13, 1958
880 yards	10:11.8	Ilse Konrads	Australia	Townsville	June 13, 1958
1,500 meters	20:03.1	Jans Koster	Netherlands	Hilversum	July 27, 1957
1,650 yards	(vacant—20:30.0)				

BREASTSTROKE

100 meters	1:20.3	Karin Beyer	East Germany	Berlin	July 20, 1958
110 yards	(vacant—1:21.6)				
200 meters	2:51.3	Ada den Haan	Netherlands	Rhenen	Aug. 4, 1957
220 yards	2:52.5	Ada den Haan	Netherlands	Blackpool	May 18, 1957

BUTTERFLY

100 meters	1:09.6	Nancy Ramey	United States	Los Angeles	June 28, 1958
110 yards	1:11.3	Nancy Ramey	United States	Houston	Aug. 16, 1957
200 meters	2:40.5	Nancy Ramey	United States	Los Angeles	June 29, 1958
220 yards	(vacant—2:44.4)				

BACKSTROKE

100 meters	1:11.9	Judy Grinham	Great Britain	Cardiff	July 23, 1958
110 yards	1:11.9	Judy Grinham	Great Britain	Cardiff	July 23, 1958
200 meters	2:37.4	Chris von Saltza	United States	Topeka	Aug. 1, 1958
220 yards	2:38.5	Lenie de Nijs	Netherlands	Blackpool	May 17, 1957

INDIVIDUAL MEDLEY

400 meters	5:43.7	Sylvia Ruuska	United States	Topeka	Aug. 1, 1958
440 yards	5:46.9	Sylvia Ruuska	United States	Culver City	Aug. 1, 1957

FREE STYLE RELAYS

400 meters	4:17.1	National Team	Australia	Melbourne	Dec. 6, 1956
		(Dawn Fraser, Faith Leech, Sandra Morgan, Lorraine Crapp)			
440 yards	4:17.4	National Team	Australia	Cardiff	July 19, 1958
		(Dawn Fraser, Sandra Morgan, Lorraine Crapp, Alva Colquhoun)			

MEDLEY RELAYS**(Back, Breast, Butterfly, Free Style)**

400 meters	4:52.9	National Team	Netherlands	Budapest	Sept. 5, 1958
		(Lenie de Nijs, Ada den Haan, Attie Voorbij, Cockie Gastelaars)			
440 yards	4:52.9	National Team	Netherlands	Budapest	Sept. 5, 1958
		(Lenie de Nijs, Ada den Haan, Attie Voorbij, Cockie Gastelaars)			

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Federal law forbids the use of the Olympic emblem or the words, "Olympic" and "Olympiad" for business or advertising purposes or for theatrical or athletic per-

formances to any persons, corporations, or associations other than the United States Olympic Association, its subordinate organizations, and its employees and officers.

DOG SHOWS

Westminster Kennel Club Exhibition

Year	Best in show	Breed	Owner
1907-09	Ch. Warren Remedy	Fox terrier, smooth	Winthrop Rutherford
1910	Ch. Sabine Rarebit	Fox terrier, smooth	Sabine Kennels
1911	Ch. Tickle Em Jack	Scottish terrier	A. Albright, Jr.
1912	Ch. Kenmore Sorceress	Airedale terrier	William P. Wolcott
1913	Ch. Strathway Prince Albert	Bulldog	Alex H. Stewart
1914	Ch. Brentwood Hero	Old English sheep dog	Mrs. Tyler Morse
1915-16	Ch. Matford Vic	Fox terrier, wire	George W. Quintard
1917	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1918	Ch. Haymarket Faultless	Bull terrier	R. H. Elliot
1919	Ch. Briergate Bright Beauty	Airedale terrier	G. L. L. Davis
1920	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1921	Ch. Midkiff Seductive	Cocker spaniel	William T. Payne
1922	Ch. Boxwood Barkentine	Airedale terrier	Frederic C. Hood
1924	Ch. Barberryhill Bootlegger	Sealyham terrier	Bayard Warren
1925	Ch. Governor Moscow	Pointer	Robert F. Maloney
1926	Ch. Signal Circuit	Fox terrier, wire	Halleston Kennels
1927	Ch. Pinegrade Perfection	Sealyham terrier	Frederic C. Brown
1928	Ch. Talavera Margaret	Fox terrier, wire	R. M. Lewis
1929	Land Loyalty of Bellhaven	Collie	Mrs. Florence B. Ilch
1930-31	Ch. Pendley Calling of Blarney	Fox terrier, wire	John G. Bates
1932	Ch. Nancolletth Markable	Pointer	Giralda Farms
1933	Ch. Warland Protector of Shelterock	Airedale terrier	S. M. Stewart
1934	Ch. Flornell Spicy Bit of Halleston	Fox terrier, wire	Halleston Kennels
1935	Ch. Nunsoe Duc de la Terrace of Blakeen	Poodle	Blakeen Kennels
1936	Ch. St. Margaret Magnificent of Clairedale	Sealyham terrier	Clairedale Kennels
1937	Ch. Flornell Spicy Piece of Halleston	Fox terrier, wire	Halleston Kennels
1938	Daro of Maridor	English setter	Maridor Kennels
1939	Ferry v. Rauhelsen of Giralda	Doberman pinscher	Giralda Farms
1940-41	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1942	Ch. Wolvey Pattern Edgerstoune	West Highland terrier	Mrs. John G. Winant
1943	Ch. Pitter Patter of Piperscroft	Miniature poodle	Mrs. P. H. B. Frelinghuysen
1944	Ch. Flornell Rare-Bit of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1945	Shieling's Signature	Scottish terrier	Mr. and Mrs. T. H. Snethen
1946	Ch. Hetherington Model Rhythm	Fox terrier, wire	Mr. and Mrs. T. H. Carruthers III
1947	Ch. Warlord of Mazelaine	Boxer	Mr. and Mrs. R. C. Kettles, Jr.
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Mazelaine's Zazarac Brandy	Boxer	Mr. and Mrs. John P. Wagner
1950	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1951	Ch. Bang Away of Sirrah Crest	Boxer	Dr. and Mrs. R. C. Harris
1952-53	Ch. Rancho Dobe's Storm	Doberman pinscher	Mr. and Mrs. Len Carey
1954	Ch. Carmor's Rise and Shine	Cocker Spaniel	Mrs. Carl E. Morgan
1955	Ch. Kippax Fearnought	Bulldog	Dr. John A. Saylor
1956	Ch. Wilber White Swan	Toy poodle	Bertha Smith
1957	Ch. Shirkhan of Grandeur	Afghan	Sunny Shay-Dorothy Chenade

Morris and Essex Kennel Club Exhibition

1928	Ch. Delf Discriminate of Pinegrade	Sealyham terrier	Pinegrade Kennels
1929	Ch. Little Emir	Pomeranian	Mrs. V. Matta
1930	Ch. Weltona Frizzette of Wildoaks	Fox terrier, wire	Mr. and Mrs. R. C. Bondy
1931	Ch. Fionne v Loheland of Walnut Hall	Great dane	Harkness Edwards
1932	Ch. Lone Eagle of Earlsmoor	Fox terrier, wire	Dr. and Mrs. S. Milbank
1933	Eppingeville of Blarney	Fox terrier, wire	John G. Bates
1934	Ch. Gunside Babs of Hollybourne	Sealyham terrier	S. L. Froelich
1935	Ch. Milson O'Boy	Irish setter	Mrs. Cheever Porter
1936	Ch. Mr. Reynal's Monarch	Harrier	Amory L. Haskell
1937	Ch. Sturdy Max	English setter	Maridor Kennels
1938	Ch. Ideal Weather	Old English sheep dog	Leonard Collins
1939	Ch. My Own Brucie	Cocker spaniel	H. E. Mellenthin
1940	Ch. Blakeen Jung Frau	Poodle, standard	Blakeen Kennels
1941	Ch. Nornay Saddler	Fox terrier, smooth	Wissaboo Kennels
1946	Ch. Benbow's Beau	Cocker spaniel	Robert A. Gusman
1947-48	Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1950	Ch. Tyrone Farm Clancy	Irish setter	Jack Spear
1951	Ch. Rock Falls Colonel	English setter	William T. Holt
1952	Ch. Wyretex Wyns Traveller of Trucote	Fox terrier, wire	Mrs. Leonard Smit
1953	Ch. Topflight Template of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1955	Ch. Baroque of Quality Hill	Boxer	Mr. and Mrs. John P. Wagner
1956	Ch. Roadcoach Roadster	Dalmatian	Mrs. Sydney K. Allman, Jr.
1957	Ch. Fircot L'Ballerine of Maryland	Miniature Poodle	Mr. and Mrs. Saunders Meade

WORLD ALL-TACKLE FISHING RECORDS

Caught with Rod and Reel in Salt Water

Source: International Game Fish Association.

Species	Lb., os.	Length	Girth	Where caught	Year	Angler
Albacore	69	42"	32½"	St. Helena	1956	P. Allen
Amberjack	120-8	62"	40"	Kona, T. H.	1955	C. W. McAlpin
Barracuda	103-4	66"	31½"	West End, Bahamas	1932	C. E. Benet
Bass, Calif. Black Sea	514	86"	82"	San Clemente, Calif.	1955	J. Patterson
Bass, Calif. White Sea	83-12	65½"	34"	Baja California, Mex.	1953	L. C. Baumgardner
Bass, Channel	83	52"	29"	Cape Charles, Va.	1949	Zack Waters, Jr.
Bass, Sea	8	22"	19"	Nantucket Sound, Mass.	1951	H. R. Rider
Bass, Giant Sea	551	100"	....	Galveston Bay, Texas	1937	G. Pangarakis
Bass, Striped	73	60"	30½"	Vineyard Sound, Mass.	1913	C. B. Church
Blackfish (Tautog)	21-6	31½"	23½"	Cape May, N. J.	1954	R. N. Sheaffer
Bluefish	24-3	41"	22"	San Miguel, Azores	1953	M. da Silva Veloso
Bonito, Oceanic	39-15	39"	28"	Walker Cay, Bahamas	1952	F. Drowley
Cobia	102	70"	34"	Cape Charles, Va.	1938	J. E. Stansbury
Cod	57-8	56"	....	Ambrose Lightship, N. Y.	1949	J. Rzeszewicz
Dolphin	76	63"	....	Acapulco, Mexico	1957	R. G. Stotsbery
Drum, Black	94-4	51½"	42"	Cape Charles, Va.	1957	James L. Johnson
Flounder, Summer	20	37"	32"	Oak Beach, N. Y.	1948	F. H. Kessel
Flounder, Summer	20-7	37"	29½"	Long Island Sound, N. Y.	1957	Mrs. M. Fredriksen
Kingfish	77	65"	29"	Bimini, Bahamas	1957	C. O. Potts
Marlin, Blue	756	168"	66"	San Juan, P. R.	1956	Allen Sherman, Jr.
Marlin, Pacific Black	1560	174"	81"	Cabo Blanco, Peru	1953	A. C. Glassell, Jr.
Marlin, Silver	755	163¾"	65½"	Pinas Bay, Panama	1953	R. Dugan, Jr.
Marlin, Striped	692	161"	....	Balboa, California	1931	A. Hamann
Marlin, White	161	104"	33"	Miami, Florida	1938	L. F. Hooper
Pollack	36	46½"	26"	Montauk, N. Y.	1957	Wm. E. Davis
Roosterfish	100	54"	32"	Cabo Blanco, Peru	1954	M. Barrerenechea
Sailfish, Atlantic	123	44"	32¾"	Walker Cay, Bahamas	1950	H. Teetor
Sailfish, Pacific	221	129"	....	Santa Cruz Is., Galapagos Is.	1947	C. W. Stewart
Sawfish	736	175"	....	Galveston, Texas	1938	Gus Pangarakis
Shark, Mako	1000	144"	....	Mayor Island, N. Z.	1943	B. D. H. Ross
Shark, Porbeagle	271	98"	49"	Looe, Cornwall, England	1958	Mrs. Hetty Eathorne
Shark, Thresher	922	....	....	Bay of Islands, N. Z.	1937	W. W. Dowding
Shark, Tiger	1382	166"	93"	Sydney Heads, Australia	1939	Lyle Bagnard
Shark, White	2536	201"	111"	Denial Bay, Australia	1955	A. Dean
Snook (Robalo)	50-8	55"	....	Gatun Spillway, Canal Zone	1944	J. W. Anderson
Swordfish	1182	179"	78"	Iquique, Chile	1953	L. E. Marron
Tarpon	283	86 3/5"	....	Lake Maracaibo, Venezuela	1956	M. Salazar
Tuna, Allison (Yellowfin)	265	73"	53"	Makau, T. H.	1937	J. W. Harvey
Tuna, Atlantic Big-Eyed	209-6	70"	46"	Madeira	1956	A. A. Ribeiro
Tuna, Blackfin	44-8	41½"	28½"	Capetown, South Africa	1957	G. B. Mercorio
Tuna, Bluefin	977	116"	94½"	St. Ann Bay, Nova Scotia	1950	D. Mcl. Hodgson
Tuna, Pacific Big Eyed	435	93"	63½"	Cabo Blanco, Peru	1957	R. V. A. Lee
Weakfish	17-8	46"	19"	Mullica River, N. J.	1944	A. Weisbecker, Jr.
Weakfish, Spotted	15-3	34½"	20½"	Fort Pierce, Fla.	1949	C. W. Hubbard
Yellowtail	105-12½	65"	40"	Bahia de Topolobampo, Mexico	1955	M. A. Yant

Caught with Rod and Reel in Fresh Water

Source: Mary Ball, Field & Stream.

Black Bass, Largemouth	22-4	32½"	28½"	Montgomery Lake, Ga.	1932	George W. Perry
Black Bass, Smallmouth	11-15	27"	21¾"	Dale Hollow Lake, Ky.	1955	David L. Hayes
Bluegill (Sunfish)	4-12	15"	18¾"	Ketona Lake, Ala.	1950	T. S. Hudson
Carp	55-5	42"	31"	Clearwater Lake, Minn.	1952	Frank J. Ledwein
Catfish, Channel	55	50"	27"	James River, S. D.	1949	Roy A. Groves
Perch, White	4-12	19½"	13"	Messalonskee Lake, Maine	1949	Mrs. Earl Small
Perch, Yellow	4-3½	....	....	Bordentown, New Jersey	1865	Dr. C. C. Abbot
Pickering, Eastern chain	9-3	27"	....	Medford Lakes, N. J.	1957	Frank McGovern
Pike, Northern	46-2	52½"	25"	Sacandaga Reservoir, N. Y.	1940	Peter Dubuc
Salmon, Atlantic	79-2	....	....	Tanae, Norway	1928	Henrik Henriksen
Salmon, Chinook	83	....	....	Umpqua River, Oregon	1910	F. R. Steel
Salmon, Landlocked	22-8	36"	....	Sebago Lake, Maine	1907	Edward Blakely
Salmon, Silver	31	....	....	Cowichan Bay, B. C.	1947	Mrs. Lee Hallberg
Sturgeon, White	360	111"	86"	Snake River, Idaho	1956	Willard Cravens
Trout, Brook	14-8	31½"	11½"	Nipigon River, Ontario	1916	Dr. W. J. Cook
Trout, Brown	39-8	....	....	Loch Awe, Scotland	1866	W. Muir
Trout, Dolly Varden	32	40½"	29¾"	Lake Pend Oreille, Idaho	1949	N. L. Higgins
Trout, Lake	63-2	51½"	32¾"	Lake Superior	1952	Hubert Hammers
Trout, Rainbow or Steelhead	37	40½"	28"	Lake Pend Oreille, Idaho	1947	Wes Hamlet
Walleye	22-4	36¾"	21"	Fort Erie, Ontario	1943	Patrick E. Noon

BILLIARDS

APPARENTLY nobody knows where billiards originated. Some trace the game back to ancient Greece or early Egyptian days; others insist it originated in France or England in medieval times. Shakespeare must have believed the Egyptian tale, because in *Antony and Cleopatra* he has Cleopatra saying: "Let's to billiards; come, Charmian." There is an illustration of Louis XIV of France playing billiards in 1694 and using a shovel-shaped stick to set the "cue ball" in motion, from which it is evident that the pointed cue was a later development.

Certainly the game was popular in England and on the Continent in the seven-

teenth and eighteenth centuries and early settlers in North America are supposed to have introduced the game here. How to apply "English" to a billiard ball was discovered by Jack Carr, an Englishman, in 1820. A Frenchman named Mingaud is credited with having invented the "draw" shot at about the same time and also to have devised leather tips for wooden cues. Championship competition, amateur and professional, is a modern development in billiards. The first formal professional tournament held in the United States took place in New York in 1863 with eight players competing. The first three-cushion tournament was held in St. Louis in 1878.

Billiards Statistics

Source: John Canell, Secretary, The Billiard Congress of America.

World Three-cushion Champions

1878	Leon Magnus	1911	Alfredo DeOro	1917-18	Alfredo DeOro	1931	Arthur Thurnblad
1899	W. H. Catton	1912	Joe Carney	1918-19	Augie Kieckhefer	1932	Augie Kieckhefer
1900	Eugene Carter	1912	John Horgan	1919	Alfredo DeOro	1933	Welker Cochran
1900	Lloyd Jevne	1913-14	Alfredo DeOro	1919	R. L. Cannafax	1934	John Layton
1907	Harry P. Cline	1915	George Moore	1920	John Layton	1935	Welker Cochran
1908	John Daly	1915	William H. Huey	1921	Augie Kieckhefer	1936	Willie Hoppe
1908	Thomas Hueston	1916	Alfredo DeOro	1921-23	John Layton	1937-38	Welker Cochran
1908-09	Alfredo DeOro	1916	Charles Ellis	1923	Tiff Denton	1939	Joe Chamaco
1910	Fred Eames	1916	Charles McCourt	1924-25	R. L. Cannafax	1940-44	Willie Hoppe
1910	Alfredo DeOro	1916	Hugh Heali	1926-27	Otto Reiselt	1944-45	Welker Cochran
1910	John Daly	1916	George Moore	1927	Augie Kieckhefer	1947-52	Willie Hoppe
1910	Thomas Hueston	1917	Charles McCourt	1928	Otto Reiselt	1953	Ray Kilgore
1911	John Daly	1917	R. L. Cannafax	1928-30	John Layton	1954-57	No tournament

World Pocket Billiard Champions

1878-80	Cyrille Dion	1899-1900	Alfredo DeOro	1912	R. J. Ralph	1936	James Caras
1881	Gottlieb Wahlstrom	1901	Frank Sherman	1913	Alfredo DeOro	1937	Ralph Greenleaf
1882-83	Albert Frey	1901	Alfredo DeOro	1913-15	Bennie Allen	1938-39	James Caras
1884	J. L. Malone	1902	William Clearwater	1916	Emmet Blankenship	1940-	Andrew Ponzi
1886-87	Alfred Frey	1902	Grant Eby	1916	John Layton	1941	Willie Mosconi
1887	J. L. Malone (f)	1903-04	Alfredo DeOro	1916-18	Frank Taberski	1941	Erwin Rudolph
1887-88	Alfredo DeOro	1905	Jerome Keogh (f)	1919-24	Ralph Greenleaf	1942	Irving Crane
1888	Frank Powers	1905	Alfredo DeOro	1925	Frank Taberski	1942	Willie Mosconi
1889	Albert Frey	1905	Thomas Hueston (f)	1926	Ralph Greenleaf	1943	Andrew Ponzi
1889	Alfredo DeOro	1906	Thomas Hueston	1926	Erwin Rudolph	1943-45	Willie Mosconi
1890	H. Manning	1906	John Horgan	1926	Thomas Hueston	1946	Irving Crane
1891	Frank Powers (f)	1906	Jerome Keogh	1927	Frank Taberski	1946-48	Willie Mosconi
1892-94	Alfredo DeOro	1907-08	Thomas Hueston	1927-28	Ralph Greenleaf	1949	James Caras
1895	William Clearwater	1908	Frank Sherman	1928	Frank Taberski	1950-53	Willie Mosconi
1895	Alfredo DeOro	1908	Alfredo DeOro	1929	Ralph Greenleaf	1954	No tournament
1896	Frank Stewart (f)	1909	Charles Weston	1929	Frank Taberski	1955	Irving Crane
1897	Grant Eby	1909	John Kling	1930	Erwin Rudolph	1955	Willie Mosconi
1897	Jerome Keogh	1910	Thomas Hueston	1930-32	Ralph Greenleaf	1956-57	No tournament
1898	William Clearwater	1910	Jerome Keogh	1933-34	Erwin Rudolph		
1898	Jerome Keogh	1910-12	Alfredo DeOro	1935	Andrew Ponzi		

(f) Fortfelt.

National Amateur Three-cushion Champions

Since 1945, tournament has been limited to athletic clubs and identified as the national amateur invitational three-cushion billiard championship.

1910—Pierre Maupome	1925-26—Dr. A. J. Harris	1930—R. B. Harper	1946—Edward Lee
1911—Charles Morin	1927—Robert M. Lord	1931—Frank Flemming	1946-48—Robert M. Lord
1919—Arthur Newman	1927—Dr. L. P. Macklin	1931-35—Edward Lee	1948—C. T. Vandenovert
1920—W. B. Huey	1928—J. N. Bozeman	1936—Edward Lee*	1948-53—Edward Lee
1921—Earl Lookabaugh	1929—Charles Jordan	1937—A. Primeau	1954—Lee Lerner
1922—Frank Flemming	1929—Max Shimon	1938—Gene Deardorff	1955—No tournament
1923—Robert M. Lord	1930—Joseph Hall	1939-40—Gene Deardorff	1956—Edward Lee
1924—Frank Flemming	1930—Max Shimon	1945-46—C. T. Vandenovert	1957—Stanhope Adams

* World champion.

† Match.

Standard Measurements in Sports

BASEBALL

- Home plate to pitcher's box—60 feet 6 inches.
- Plate to second base—127 feet 3 $\frac{3}{8}$ inches.
- Distance from base to base (home plate included)—90 feet.
- Size of bases—15 inches by 15 inches.
- Pitcher's plate—24 inches by 6 inches.
- Batter's box—6 feet by 4 feet.
- Home plate—17 inches by 17 inches, cut to a point at rear.
- Home plate to backstop—Not less than 60 feet.
- Weight of ball—Not less than 5 ounces nor more than 5 $\frac{1}{4}$ ounces.
- Circumference of ball—Not less than 9 inches nor more than 9 $\frac{1}{4}$ inches.
- Bat—Must be round, not over 2 $\frac{3}{4}$ inches in diameter at thickest part, nor more than 42 inches in length, and of hard-wood in one piece or laminated.

FOOTBALL

- Length of field—120 yards.*
- Width of field—53 $\frac{1}{2}$ yards (160 feet).
- Height of goal posts—20 feet.
- Height of crossbar—10 feet.
- Width of goal posts—18 feet 6 inches, inside to inside, and not more than 19 feet 2 inches, outside to outside.
- Length of ball—11 to 11.25 inches (long axis).
- Circumference of ball—21.25 to 21.50 inches (middle); 28 to 28.5 inches (long axis).

* Includes 10 yards of end zone on either side.

LAWN TENNIS

- Size of court—Rectangle 78 feet long and 27 feet wide (singles); 78 feet long and 36 feet wide (doubles).
- Height of net—3 feet in center, gradually rising to reach 3-foot 6-inch posts at each side of court.
- Ball—Shall be more than 2 $\frac{1}{2}$ inches and less than 2 $\frac{5}{8}$ inches in diameter and weigh more than 2 ounces and less than 2 1/16 ounces.
- Service line—21 feet from net.

BOWLING

- Lane dimensions—Overall length 62 feet 10 3/16 inches, measuring from foul line to pit (not including tail plank), with $\frac{1}{2}$ inch tolerance permitted. Foul line to No. 1 pinspot 60 feet, with $\frac{1}{2}$ inch tolerance permitted. Lane width, not less than 41 inches, nor more than 42. Approach, not less than 15 feet. Gutters, not less than 9 inches nor more than 9 $\frac{1}{2}$ inches wide.
- Ball—Circumference, not more than 27 inches. Weight, 10 pounds minimum, 16 pounds maximum. Balance, tolerance of 3 ounces between top finger hole,

side and bottom. One ounce tolerance between right and left sides. One ounce tolerance between front and back sides.

GOLF

- Weight of ball—Not greater than 1.620 ounces.
- Size of ball—Not less than 1.680 inches in diameter.
- Velocity of ball—Not greater than 250 feet per second, with 2 per cent tolerance.
- Hole—Shall be 4 $\frac{1}{4}$ inches in diameter and at least 4 inches deep.
- Clubs—No restrictions on the size; 14 is the maximum number permitted.

ICE HOCKEY

- Size of rink—200 feet long by 85 feet wide (desired size).
- Size of goal—6 feet wide by 4 feet in height.
- Puck—1 inch thick and 3 inches in diameter; made of vulcanized rubber; weight—six ounces (unofficial).
- Length of stick—Not more than 53 inches from heel to end of shaft nor 14 $\frac{3}{4}$ inches from heel to end of blade. Blade should not exceed 3 inches in height, except goalkeeper's stick, which shall not exceed 3 $\frac{1}{2}$ inches in height except at the heel, where it must not exceed 4 $\frac{1}{2}$ inches.

BASKETBALL

(National Collegiate A. A. Rules)

- Playing court—94 feet long by 50 feet wide (maximum dimensions).
- Baskets—Rings 18 inches in inside diameter, with white cord nets, 15 to 18 inches in length. Each ring is made of metal and is not more than $\frac{5}{8}$ of an inch in diameter.
- Height of basket ring—10 feet.
- Weight of ball—Not less than 20 ounces nor more than 22.
- Circumference of ball—No greater than 30 inches and not less than 29 $\frac{1}{2}$.
- Free-throw line—15 feet from the face of the backboard.

BOXING

- Size of ring—The matches take place in an area, not less than 18 nor more than 20 feet square. It is enclosed by three 1-inch covered ropes. The floor has a 2-inch padding that extends at least 6 inches beyond the roped area in the case of elevated rings and 3 feet if the ring is at floor level.
- Gloves—In professional fights, 8-ounce gloves generally are used, except in title contests, where 6-ounce gloves are the custom. A.A.U., 8 ounces up to welter-weight, 10 ounces in heavier divisions. Colleges, minimum of 12 ounces.

AUTO RACING

THE FIRST automobiles on the road were erratic in action and driving them or even riding in them was considered a trifle risky, hence it became the sporting thing to do. Experimental excursions in crude cars gave rise to rivalry in speed over the rough roads of the Gay Nineties and this eventually led to formal contests, the first of which was a road race from Paris to Rouen in 1894, with 26 cars showing up at the starting line. Formal competition in the United States started with a road race in the Chicago district on Thanksgiving Day, 1895, and the winner, J. F. Duryea, covered the road distance of 54.36 miles at the astonishing average of 7.5 miles per hour!

Around 1900 Paris became the hub of road racing in Europe and each year there were raucous, dusty and dangerous races from Paris to Berlin, to Vienna, to Madrid

and other cities on the Continent. Accidents were so numerous to drivers and spectators that, after a gory group of mishaps in the forepart of the Paris-Madrid race of 1903, the contest was halted at Bordeaux by public authorities and all road racing was brought under control. Other kinds of auto racing were exposed to view. Some contests, including 24-hour races for stock models, were held on circular or oval tracks originally built for horse racing. Finally came the special racing strips for autos, including such famous autodromes as Brooklands in England and the Indianapolis Speedway in the United States.

As a test of engine and chassis under severe conditions and great strain, auto racing rendered invaluable assistance in the development of the motor car of today.

National Champions

(A. A. A. champions, 1909-1955; U. S. Auto Club champions, 1956.)

1909 Bert Dingley	1923 Eddie Hearne	1937 Wilbur Shaw
1910 Ray Harroun	1924 Jimmy Murphy	1938 Floyd Roberts
1911 Ralph Mulford	1925 Peter DePaolo	1939 Wilbur Shaw
1912 Ralph DePalma	1926 Harry Hartz	1940 Rex Mays
1913 Earl Cooper	1927 Peter DePaolo	1941 Rex Mays
1914 Ralph DePalma	1928 Louis Meyer	1946 Ted Horn
1915 Earl Cooper	1929 Louis Meyer	1947 Ted Horn
1916 Dario Resta	1930 Billy Arnold	1948 Ted Horn
1917 Earl Cooper	1931 Louis Schneider	1949 John Parsons
1918 Ralph Mulford	1932 Bob Carey	1950 Henry Banks
1919 Howard Wilcox	1933 Louis Meyer	1951 Tony Bettenhausen
1920 Gaston Chevrolet	1934 Bill Cummings	1952 Charles Stevenson
1921 Tommy Milton	1935 Kelly Petillo	1953 Sam Hanks
1922 Jimmy Murphy	1936 Mauri Rose	1954 Jimmy Bryan
		1955 Bob Sweikert
		1956 Jimmy Bryan
		1957 Jimmy Bryan

History of the One-Mile Speed Mark

The first recorded effort for one mile was made in 1898 by Chasseloup-Laubat, driving a Jentaud, in France. His average was 39.23 m.p.h. This was increased to 65.79 in 1899 by Jenatzky, also in France. The first man to travel better than 100 m.p.h. was Rigolly, in 1904, at 103.56 m.p.h., followed by Baras, with 104.53 in the same year. The first over 200 m.p.h. was Major H. O. D. Segrave, who drove at 203.79 in 1927 at Daytona, Florida.

In 1947 John Cobb of London became the first person to travel more than 400 m.p.h. on land. The Englishman accomplished the

feat on Sept. 16 at Bonneville, Utah, while raising the world mile record to 394.196 m.p.h. and the world kilometer (.62137 of a mile) mark to 393.825 m.p.h.

Cobb's fastest mile was covered in 8.93 seconds and his average speed was 9.1325 seconds. The Briton drove at the rate of 385.645 m.p.h. for the mile and 388.019 for the kilometer on the southward run, then increased his pace to 403.135 m.p.h. and 399.808, respectively, on the northward sprint, the best times ever recorded.

Those who drove 300 m.p.h. or better follow (all at Bonneville):

Date	Driver	Car	Average
Sept. 3, 1935	Sir Malcolm Campbell	Bluebird Special	301.1292
Nov. 19, 1937	Capt. G. E. T. Eyston	Thunderbolt #1	311.42
Aug. 27, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	345.5
Sept. 15, 1938	John Cobb	Ralton	350.2
Sept. 16, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	357.5
Aug. 23, 1939	John Cobb	Ralton Red Lion	368.9
Sept. 16, 1947	John Cobb	Ralton Mobil Special	394.196

Indianapolis Motor Speedway Winners

(500-mile race)

Year	Winner	Car	Second	Third	Time	Average m.p.h.
1911	Harroun	Marmon	Mulford	Bruce-Brown	6:42:08	74.59
1912	Dawson	National	Tetzloff	Hughes	6:21:08	78.70
1913	Goux	Peugeot	Wishart	Merz	6:35:05	76.92
1914	Thomas	Delage	Duray	Guyot	6:03:45	82.47
1915	DePalma	Mercedes	Resta	Anderson	5:33:55	89.84
1916*	Resta	Peugeot	De Aleve	Mulford	3:34:17	83.26
1917-18	No races					
1919	Wilcox	Peugeot	Hearne	Goux	5:40:42	88.06
1920	Chevrolet	Monroe	Thomas	Milton	5:38:32	88.50
1921	Milton	Frontenac	Charles	Ford	5:34:44	89.62
1922	Murphy	Murphy Special	Hartz	Hearne	5:17:30	94.48
1923	Milton	H. G. S. Special	Hartz	Murphy	5:29:50	90.95
1924	Corum-Boyer	Dusenbergl Special	Cooper	Murphy	5:05:23	98.23
1925	DePaolo	Dusenbergl Special	Lewis	Shafer	4:56:39	101.13
1926†	Lockhart	Miller Special	Hartz	Woodbury	4:10:17	95.88
1927	Souders	Duesenberg	Devore	Gulatta	5:07:33	97.54
1928	Meyer	Miller Special	Moore	Souders	5:01:33	99.48
1929	Keech	Simplex Special	Meyer	Gleason	5:07:25	97.58
1930	Arnold	Hartz-Miller	Canton	Schneider	4:58:39	100.488
1931	Schneider	Bowes Special	Frame	Hepburn	5:10:28	96.629
1932	Frame	Miller Special	Wilcox	Bergere	4:48:03.79	104.144
1933	Meyer	Miller Special	Shaw	Moore	4:48:12.75	104.089
1934	Cummings	Miller Special	Rose	Moore	4:46:05.20	104.863
1935	Petillo	Gilmore Special	Shaw	Cummings	4:42:22.71	106.240
1936	Meyer	Ring Free Special	Horn	Mackenzie	4:35:03.39	109.069
1937	Shaw	Shaw-Gilmore Special	Hepburn	Horn	4:24:07.80	113.580
1938	Roberts	Burd Piston Reg. Special	Shaw	Miller	4:15:58.40	117.200
1939	Shaw	Boyle Special	Snyder	Bergere	4:20:47.39	115.035
1940	Shaw	Boyle Special	Mays	Rose	4:22:31.17	114.277
1941	Rose-Davis†	Noc-Out Hose Clamp Special	Mays	Horn	4:20:36.24	115.117
1942-45	No races					
1946	Robson	Thorne Eng. Special	Jackson	Horn	4:21:16.71	114.820
1947	Rose	Blue Crown Special	Holland	Horn	4:17:52.17	116.338
1948	Rose	Blue Crown Special	Holland	Nalon	4:10:23.38	119.813
1949	Holland	Blue Crown Special	Parsons	Connor	4:07:15.97	121.327
1950§	Parsons	Wynn's Fiction Proof Spl.	Holland	Rose	2:46:55.97	124.002
1951	Wailard	Belanger Special	Nazaruk	McGrath-Ayulo	3:57:38.05	126.244
1952	Ruttman	Agajanian Special	Rathmann	Hanks	3:52:41.88	128.922
1953	Vukovich	Fuel Injection Spl.	Cross	Hanks-Carter	3:53:01.69	128.740
1954	Vukovich	Fuel Injection Spl.	Bryan	McGrath	3:49:17.27	130.840
1955	Sweikert	John Zink Special	Bettenhausen	Davies	3:53:59.53	128.209
1956	Flaherty	John Zink Special	Hanks	Freeland	3:53:28.84	128.490
1957	Hanks	Belond Exhaust Special	Rathmann	Bryan	3:41:14.25	135.601

* 300 miles. † Race ended at 400 miles owing to heavy rain. ‡ Davis drove 180 miles, Rose 320. § 1950 race ended at 345 miles because of rain.

CASTING

National Records

• DISTANCE EVENTS

	Feet
Trout fly (average)—Jack Crossfield	186½
Trout fly (long cast)—Jack Crossfield	194
Salmon fly (average)—Myron C. Gregory	200½
Salmon fly (long cast)—Myron C. Gregory	212
¾-oz. bait (average)—Richard R. Ward	368
¾-oz. bait (long cast)—Richard R. Ward	386
¾-oz. bait (average)—Charles L. Schall	443
¾-oz. bait (long cast)—Jon Tarantino	453

ACCURACY EVENTS

Dry fly—Held by 9 casters	100 pts.
Wet fly—Held by 63 casters	100 pts.

¾-oz. bait—Benjite Fontaine	100 pts.
¾-oz. bait—J. A. Halbleib, Frank Halper and Don Allen	100 pts.

COMBINED CHAMPIONSHIPS

All accuracy—Casper Rigamer	396 pts.
Accuracy baits—Casper Rigamer	198 pts.
Accuracy flies—Don Meyer, Fred Mathis and Charles Sutphin	200 pts.
All-distance—Jon Tarantino	3334 ft.
Distance baits—William J. Lovely	2367 ft.
Distance flies—Jon Tarantino	1114 ft.

LACROSSE

North-South Game Record

1940—North 6, South 5	1946—North 14, South 14	1950—North 12, South 8	1954—North 13, South 11
1941—South 7, North 6	1947—North 15, South 3	1951—North 12, South 11	1955—South 12, North 11
1942—North 6, South 3	1948—North 11, South 6	1952—South 15, North 7	1956—South 20, North 10
1943—South 9, North 5	1949—South 11, North 6	1953—South 12, North 9	1957—North 14, South 10

HORSE RACING

ANCIENT DRAWINGS on stone and bone prove that horse racing is at least 3000 years old, but Thoroughbred Racing is a modern development. Practically every thoroughbred in training today traces its registered ancestry back to one or more of three sires that arrived in England about 1728 from the Near East and became known, from the names of their owners, as the Byerly Turk, the Darley Arabian and the Godolphin Arabian. The Jockey Club (English) was founded at Newmarket in 1750 or 1751 and became the custodian of the Stud Book as well as the court of last resort in deciding turf affairs.

There was horse racing in this country before the Revolution, but the great lift to the breeding industry came with the importation in 1798, by Col. John Hoomes of Virginia, of Diomed, winner of the Epsom Derby of 1780. Diomed's lineal descendants included such famous stars of the American turf as American Eclipse and Lexington. From 1800 to the time of the Civil War there were race courses and breeding establishments plentifully scattered through Virginia, North Carolina, South Carolina, Tennessee, Kentucky, and

Louisiana. In fact, thoroughbred racing was largely a Southern sport and that was one reason why the Confederacy had such excellent cavalry in the Civil War. A century ago crack horses were matched in four-mile races that were run in heats, best two out of three!

The oldest stake event in North America is the Queen's Plate, a Canadian fixture that was first run in the Province of Quebec in 1836. The oldest stake event in the United States is The Travers, which was first run at Saratoga in 1864. The gambling that goes with horse racing and trickery by jockeys, trainers, owners, and track officials caused attacks on the sport by reformers and a demand among horse racing enthusiasts for an honest and effective control of some kind, but nothing of lasting value to racing came of this until the formation of The Jockey Club in 1894. The Jockey Club, composed of about sixty members chosen from the aristocracy of the turf, was all-powerful in racing regulation until the State Racing Commissions came into being as a result of mutual betting and the great revenues that came with the tax on the "daily handle."

Horse Racing Statistics

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HISTORY OF THE AMERICAN TRIPLE CROWN

BELMONT STAKES

Belmont Park; 3-year-olds; 1½ miles.

Run at Jerome Park prior to 1890; run at Morris Park from 1890 to 1905. Distance 1½ miles prior to 1874; reduced to 1¼ miles, 1874; reduced to 1¼ miles, 1890; changed to 1¼ miles, 1893; increased to 1¼ miles, 1895; increased to 1½ miles, 1896; changed to 1½ miles in 1904 and 1905; increased to 1½ miles, 1926.

Year	Winner	Jockey	Wt.	Win val.	1896	Hastings.....	H. Griffin.....	122	3,025
1867	Ruthless.....	J. Gilpatrick....	107	\$ 1,850	1897	Scottish Chieftain.....	J. Scherrer.....	115	3,550
1868	General Duke.....	R. Swim.....	110	2,800	1898	Bowling Brook.....	F. Littlefield.....	122	7,810
1869	Fenian.....	C. Miller.....	110	3,350	1899	Jean Bereaud.....	R. Clawson.....	122	9,445
1870	Kingfisher.....	W. Dick.....	110	3,750	1900	Ildrim.....	N. Turner.....	126	14,790
1871	Harry Bassett.....	W. Miller.....	110	5,450	1901	Commando.....	H. Spencer.....	126	11,595
1872	Joe Daniels.....	J. Rowe.....	110	4,500	1902	Masterman.....	J. Bullman.....	126	13,220
1873	Springbok.....	J. Rowe.....	110	5,200	1903	Africander.....	J. Bullman.....	126	12,285
1874	Saxon.....	G. Bardee.....	110	4,200	1904	Delhi.....	G. Odom.....	126	11,575
1875	Calvin.....	R. Swim.....	110	4,450	1905	Tanya.....	E. Hildebrand.....	121	17,240
1876	Algerine.....	W. Donohue.....	110	3,700	1906	Burgomaster.....	L. Lyne.....	126	22,700
1877	Cloverbrook.....	C. Holloway.....	110	5,200	1907	Peter Pan.....	G. Mountain.....	126	22,765
1878	Duke of Magenta.....	L. Hughes.....	118	3,850	1908	Colin.....	J. Notter.....	126	22,765
1879	Spendthrift.....	S. Evans.....	118	4,250	1909	Joe Madden.....	E. Dugan.....	126	24,550
1880	Grenada.....	L. Hughes.....	118	2,800	1910	Sweep.....	J. Butwell.....	126	9,700
1881	Saunterer.....	T. Costello.....	118	3,000	1913	Prince Eugene.....	R. Troxler.....	109	2,825
1882	Forester.....	J. McLaughlin.....	118	2,600	1914	Luke McLuke.....	M. Buxton.....	126	3,025
1883	George Kinney.....	J. McLaughlin.....	118	3,070	1915	The Finn.....	G. Byrne.....	126	1,825
1884	Panique.....	J. McLaughlin.....	118	3,150	1916	Friar Rock.....	E. Haynes.....	126	4,100
1885	Tyrant.....	P. Duffy.....	118	2,710	1917	Hourless.....	J. Butwell.....	126	5,800
1886	Inspector B.....	J. McLaughlin.....	118	2,720	1918	Johren.....	F. Robinson.....	126	8,950
1887	Hanover.....	J. McLaughlin.....	118	2,900	1919	Sir Barton.....	J. Loftus.....	126	11,950
1888	Sir Dixon.....	J. McLaughlin.....	118	3,440	1920	Man o' War.....	C. Kummer.....	126	7,950
1889	Eric.....	W. Hayward.....	118	4,960	1921	Grey Lag.....	E. Sande.....	126	8,650
1890	Burlington.....	S. Barnes.....	118	8,560	1922	Pillory.....	C. H. Miller.....	126	39,200
1891	Foxford.....	E. Garrison.....	118½	5,070	1923	Zev.....	E. Sande.....	126	38,000
1892	Patron.....	W. Hayward.....	122	6,610	1924	Mad Play.....	E. Sande.....	126	42,880
1893	Comanche.....	W. Simms.....	117	5,310	1925	American Flag.....	A. Johnson.....	126	38,500
1894	Henry of Navarre.....	W. Simms.....	117	6,680	1926	Crusader.....	A. Johnson.....	126	48,550
1895	Belmar.....	F. Taral.....	119	2,700	1927	Chance Shot.....	E. Sande.....	126	60,910

Belmont Stakes (Cont.)

1928	Vito.....	C. Kummer.....	126	63,430	1943	Count Fleet.....	J. Longden.....	126	35,340
1929	Blue Larkspur.....	M. Garner.....	126	59,650	1944	Bounding Home.....	G. L. Smith.....	126	55,000
1930	Gallant Fox.....	E. Sande.....	126	66,040	1945	Pavot.....	E. Arcaro.....	126	52,675
1931	Twenty Grand.....	C. Kutsinger.....	126	58,770	1946	Assault.....	W. Mehrtens.....	126	75,400
1932	Faireno.....	T. Malley.....	126	55,120	1947	Phalanx.....	R. Donoso.....	126	78,900
1933	Hurryhoff.....	M. Garner.....	126	49,490	1948	Citation.....	E. Arcaro.....	126	77,700
1934	Peace Chance.....	W. D. Wright.....	126	43,410	1949	Capot.....	T. Atkinson.....	126	60,900
1935	Omaha.....	W. Saunders.....	126	35,480	1950	Middleground.....	W. Boland.....	126	61,350
1936	Granville.....	J. Stout.....	126	29,800	1951	Counterpoint.....	D. Gorman.....	126	82,000
1937	War Admiral.....	C. Kutsinger.....	126	38,020	1952	One Count.....	E. Arcaro.....	126	82,400
1938	Pasteurized.....	J. Stout.....	126	34,530	1953	Native Dancer.....	E. Guerin.....	126	82,500
1939	Johnstown.....	J. Stout.....	126	37,020	1954	High Gun.....	E. Guerin.....	126	89,000
1940	Bimelech.....	F. A. Smith.....	126	35,030	1955	Nashua.....	E. Arcaro.....	126	83,700
1941	Whirlaway.....	E. Arcaro.....	126	39,770	1956	Needles.....	D. Erb.....	126	83,600
1942	Shut Out.....	E. Arcaro.....	126	44,520	1957	Gallant Man.....	W. Shoemaker.....	126	77,300

KENTUCKY DERBY

Churchill Downs; 3-year-olds; 1¼ miles

Year	Winner	Jockey	Wt.	Win val.	1916	George Smith.....	J. Loftus.....	117	9,750
1875	Aristides.....	O. Lewis.....	100	\$2,850	1917	Omar Khayyam.....	C. Borel.....	117	16,600
1876	Vagrant.....	R. Swim.....	97	2,950	1918	Exterminator.....	W. Knapp.....	114	14,700
1877	Baden Baden.....	W. Walker.....	100	3,300	1919	Sir Barton.....	J. Loftus.....	112½	20,825
1878	Day Star.....	J. Carter.....	100	4,050	1920	Paul Jones.....	T. Rice.....	126	30,375
1879	Lord Murphy.....	C. Schauer.....	100	3,550	1921	Behave Yourself.....	C. Thompson.....	126	38,450
1880	Fonso.....	G. Lewis.....	105	3,800	1922	Morvich.....	A. Johnson.....	126	46,775
1881	Hindoo.....	J. McLaughlin.....	105	4,410	1923	Zev.....	E. Sande.....	126	53,600
1882	Apollo.....	B. Hurd.....	102	4,560	1924	Black Gold.....	J. D. Mooney.....	126	52,775
1883	Leonatus.....	W. Donohue.....	105	3,760	1925	Flying Ebony.....	E. Sande.....	126	52,950
1884	Buchanan.....	I. Murphy.....	110	3,990	1926	Bubbling Over.....	A. Johnson.....	126	50,075
1885	Joe Cotton.....	E. Henderson.....	110	4,630	1927	Whiskery.....	L. McAttee.....	126	51,000
1886	Ben Ali.....	P. Duffy.....	118	4,890	1928	Reigh Count.....	C. Lang.....	126	55,375
1887	Montrose.....	I. Lewis.....	118	4,200	1929	Clyde Van Dusen.....	L. McAttee.....	126	53,950
1888	Macbeth II.....	G. Covington.....	115	4,740	1930	Gallant Fox.....	E. Sande.....	126	50,725
1889	Spokane.....	T. Kiley.....	118	4,970	1931	Twenty Grand.....	C. Kutsinger.....	126	48,725
1890	Riley.....	I. Murphy.....	118	5,460	1932	Burgoo King.....	E. James.....	126	52,350
1891	Kingman.....	I. Murphy.....	122	4,680	1933	Brokers Tip.....	D. Meade.....	126	48,925
1892	Azra.....	A. Clayton.....	122	4,230	1934	Cavalcade.....	M. Garner.....	126	28,175
1893	Lookout.....	E. Kunze.....	122	4,090	1935	Omaha.....	W. Saunders.....	126	39,525
1894	Chant.....	F. Goodale.....	122	4,020	1936	Bold Venture.....	I. Hanford.....	126	37,725
1895	Halma.....	J. Perkins.....	122	2,970	1937	War Admiral.....	C. Kutsinger.....	126	52,050
1896	Ben Brush.....	W. Simms.....	117	4,850	1938	Lawrin.....	E. Arcaro.....	126	47,050
1897	Typhoon II.....	F. Garner.....	117	4,850	1939	Johnstown.....	J. Stout.....	126	46,350
1898	Plaudit.....	W. Simms.....	117	4,850	1940	Gallahadion.....	C. Bierman.....	126	60,150
1899	Manuel.....	F. Taral.....	117	4,850	1941	Whirlaway.....	E. Arcaro.....	126	61,275
1900	Lieut. Gibson.....	J. Boland.....	117	4,850	1942	Shut Out.....	W. D. Wright.....	126	64,225
1901	His Eminence.....	J. Winkfield.....	117	4,850	1943	Count Fleet.....	J. Longden.....	126	60,725
1902	Alan-a-Dale.....	J. Winkfield.....	117	4,850	1944	Pensive.....	C. McCreary.....	126	64,675
1903	Judge Himes.....	H. Booker.....	117	4,850	1945	Hoop Jr.....	E. Arcaro.....	126	64,850
1904	Elwood.....	F. Prior.....	117	4,850	1946	Assault.....	W. Mehrtens.....	126	96,400
1905	Agile.....	J. Martin.....	122	4,850	1947	Jet Pilot.....	E. Guerin.....	126	92,160
1906	Sir Huon.....	R. Troxler.....	117	4,850	1948	Citation.....	E. Arcaro.....	126	83,400
1907	Pink Star.....	A. Minder.....	117	4,850	1949	Ponder.....	S. Brooks.....	126	91,600
1908	Stone Street.....	A. Pickens.....	117	4,850	1950	Middleground.....	W. Boland.....	126	92,650
1909	Wintergreen.....	V. Powers.....	117	4,850	1951	Count Turf.....	C. McCreary.....	126	98,050
1910	Donau.....	F. Herbert.....	117	4,850	1952	Hill Gail.....	E. Arcaro.....	126	96,300
1911	Meridian.....	G. Archibald.....	117	4,850	1953	Dark Star.....	H. Moreno.....	126	90,050
1912	Worth.....	C. H. Shilling.....	117	4,850	1954	Determine.....	R. York.....	126	102,050
1913	Donerail.....	R. Goose.....	117	5,475	1955	Swaps.....	W. Shoemaker.....	126	108,400
1914	Old Rosebud.....	J. McCabe.....	114	9,125	1956	Needles.....	D. Erb.....	126	123,450
1915	Regret.....	J. Notter.....	112	11,450	1957	Iron Liege.....	W. Hartack.....	126	107,950

“TRIPLE CROWN” WINNERS IN THE UNITED STATES
(Kentucky Derby, Preakness and Belmont Stakes)

Year	Horse	Owner	Year	Horse	Owner
1919	Sir Barton.....	J. K. L. Ross	1941	Whirlaway.....	Warren Wright
1930	Gallant Fox.....	William Woodward	1943	Count Fleet.....	Mrs. John Hertz
1935	Omaha.....	William Woodward	1946	Assault.....	Robert J. Kleberg
1937	War Admiral.....	Samuel D. Riddle	1948	Citation.....	Warren Wright

PREAKNESS STAKES

Pimlico; 3-year-olds; 1½ miles

Distance 1¼ miles prior to 1889; 1½ miles in 1889; 1½ miles 1894 to 1900, inclusive, and 1908; 1 mile and 70 yards from 1901 to 1907, inclusive; 1 mile in 1909 and 1910; 1½ miles from 1911 to 1924, inclusive. Run at Brooklyn Jockey Club's Gravesend Course from 1894 to 1908, inclusive. Run in two divisions in 1918.

Year	Winner	Jockey	Wt.	Win val.	1918	War Cloud	J. Loftus	117	12,250
1873	Survivor	G. Barbee	110	.....	1918	Jack Hare Jr.	C. Peak	115	11,250
1874	Culpepper	M. Donohue	110	.....	1919	Sir Barton	J. Loftus	126	24,500
1875	Tom Ochiltree	L. Hughes	110	.....	1920	Man o' War	C. Kummer	126	23,000
1876	Shirley	G. Barbee	110	.....	1921	Broomspun	F. Coltiletto	114	43,000
1877	Cloverbrook	C. Holloway	110	.....	1922	Pillory	L. Morris	114	51,000
1878	Duke of Magenta	C. Holloway	110	.....	1923	Vigil	B. Marinelli	114	52,000
1879	Harold	W. Hughes	110	\$2,550	1924	Nellie Morse	J. Merimee	121	54,000
1880	Grenada	W. Hughes	110	2,000	1925	Coventry	C. Kummer	126	52,700
1881	Saunterer	W. Costello	110	1,950	1926	Display	J. Maiben	126	53,625
1882	Vanguard	W. Costello	110	1,250	1927	Bostonian	A. Abel	126	53,100
1883	Jacobus	G. Barbee	110	1,635	1928	Victorian	R. Workman	126	60,000
1884	Knight of Ellerslie	S. H. Fisher	110	1,905	1929	Dr. Freeland	L. Schaefer	126	52,325
1885	Tecumseh	J. McLaughlin	118	2,160	1930	Gallant Fox	E. Sande	126	51,925
1886	The Bard	S. H. Fisher	118	2,050	1931	Mate	G. Ellis	126	48,225
1887	Dunboyne	W. Donohue	118	1,675	1932	Burgoo King	E. James	126	50,375
1888	Refund	F. Littlefield	118	1,185	1933	Head Play	C. Kurtzinger	126	26,850
1889	Buddhist	H. Anderson	118	1,130	1934	High Quest	R. Jones	126	25,175
1894	Assignee	F. Taral	122	1,830	1935	Omaha	W. Saunders	126	25,325
1895	Belmar	F. Taral	115	1,350	1936	Bold Venture	G. Woolf	126	27,325
1896	Margrave	H. Griffin	115	1,350	1937	War Admiral	C. Kurtzinger	126	45,600
1897	Paul Kauvar	Thorpe	108	1,420	1938	Dauber	M. Peters	126	51,857
1898	Sly Fox	W. Simms	120	1,450	1939	Challedon	G. Seabo	126	53,710
1899	Half Time	R. Clawson	104	1,580	1940	Bimelech	F. A. Smith	126	53,230
1900	Hindus	H. Spencer	106	1,900	1941	Whirlaway	E. Arcaro	126	49,365
1901	The Parader	Landry	118	1,605	1942	Alsab	B. James	126	58,175
1902	Old England	L. Jackson	115	2,240	1943	Count Fleet	J. Longden	126	43,190
1903	Floclarine	W. Gannon	113	1,875	1944	Pensive	C. McCreary	126	60,675
1904	Bryn Mawr	E. Hildebrand	108	2,355	1945	Polynesian	W. D. Wright	126	66,170
1905	Cairngorm	W. Davis	114	2,145	1946	Assault	W. Mehrtens	126	96,620
1906	Whimsical	W. Miller	108	2,355	1947	Faultless	D. Dodson	126	98,005
1907	Don Enrique	G. Mountain	107	2,260	1948	Citation	E. Arcaro	126	91,870
1908	Royal Tourist	E. Dugan	112	2,455	1949	Capot	T. Atkinson	126	79,985
1909	Effendi	W. Doyle	116	3,225	1950	Hill Prince	E. Arcaro	126	56,115
1910	Layminster	R. Estep	84	3,300	1951	Bold	E. Arcaro	126	83,110
1911	Watervale	E. Dugan	112	2,700	1952	Blue Man	C. McCreary	126	86,135
1912	Colonel Holloway	C. Turner	107	1,450	1953	Native Dancer	E. Guerin	126	65,200
1913	Buskin	J. Butwell	117	1,670	1954	Hasty Road	J. Adams	126	91,600
1914	Holiday	A. Schuttinger	108	1,355	1955	Nashua	E. Arcaro	126	67,550
1915	Rhine Maiden	D. Hoffman	104	1,275	1956	Fabius	W. Hartack	126	84,250
1916	Damrosch	L. McAtee	115	1,380	1957	Bold Ruler	E. Arcaro	126	65,250
1917	Kalitan	E. Haynes	116	4,800					

WINNERS OF OTHER TRADITIONAL STAKES

AMERICAN DERBY

Washington Park; 3-year-olds; 1½ miles.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1884	Modesty	1900	Sidney Lucas	1932	Gusto	1947	Fervent
1885	Volante	1901	Robert Waddell	1933	Mr. Khayyam	1948	Citation
1886	Silver Cloud	1902	Wyeth	1934	Cavalcade	1949	Ponder
1887	C. H. Todd	1903	The Picket	1935	Black Helen	1950	Hill Prince
1888	Emperor of Norfolk	1904	Highball	1937	Dawn Play	1951	Hall of Fame
1889	Spokane	1916	Dodge	1940	Mioland	1952	Mark-Ye-Well
1890	Uncle Bob	1926	Boot to Boot	1941	Whirlaway	1953	Native Dancer
1891	Strathmeath	1927	Hydromel	1942	Alsab	1954	Errard King
1892	Carlsbad	1928	Toro	1943	Askmenow	1955	Swaps
1893	Boundless	1929	Windy City	1944	By Jimminy	1956	Swoon's Son
1894	Rey el S'ta A'ta	1930	Reveille Boy	1945	Fighting Step	1957	Round Table
1898	Pink Coat	1931	Mate	1946	Eternal Reward		

3,000 Winners for Shoemaker, Brooks; 4,000 for Arcaro

Jockeys Willie Shoemaker and Steve Brooks scored the 3,000th victories of their racing careers in 1958 and Eddie Arcaro gained his 4,000th. Brooks became

the seventh U. S. jockey to win 3,000 races. Along with Shoemaker and Arcaro others were Johnny Longden, Ralph Jones, Johnny Adams, and Ted Atkinson.

ARLINGTON CLASSIC

Arlington Park; 3-year-olds; 1 mile.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1929	Blue Larkspur	1937	Flying Scot	1945	Pot o' Luck	1953	Native Dancer
1930	Gallant Fox	1938	Nedayer	1946	The Dude	1954	Errand King
1931	Mate	1939	Challedon	1947	But Why Not	1955	Nashua
1932	Gusto	1940	Sirocco	1948	Papa Redbird	1956	Swoon's Son
1933	Inlander	1941	Attention	1949	Ponder	1957	Clem
1934	Cavalcade	1942	Shut Out	1950	Greek Song		
1935	Omaha	1943	Slide Rule	1951	Hall of Fame		
1936	Granville	1944	Twilight Tear	1952	Mark-Ye-Well		

ARLINGTON FUTURITY

Arlington Park; 2-year-olds; $\frac{3}{4}$ mile.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1927	Missstep	1937*	Tiger	1944	Free for All	1952	Mr. Good
1928	Double Heart		Teddy's Comet	1945	Spy Song	1953	Hasty Road
1932	Ladysman	1938	Thingumabob	1946	Cosmic Bomb	1954	Royal Note
1933	Far Star	1939	Andy K	1947	Piet	1955	Swoon's Son
1934	Toro Nancy	1940	Swain	1948	Mr. Busher	1956	Greek Game
1935	Grand Slam	1941	Sun Again	1949	Wisconsin Boy	1957	Leather Button
1936	Case Ace	1942	Occupation	1950	To Market		
		1943	Jezrahel	1951	Hill Gail		

* Dead heat.

BELMONT FUTURITY

Belmont Park; 2-year-olds; $6\frac{1}{4}$ furlongs.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1888	Proctor Knott	1905	Ormondale	1924	Mother Goose	1941	Some Chance
1889	Chaos	1906	Electioneer	1925	Pompey	1942	Occupation
1890	Potomac	1907	Colin	1926	Scapa Flow	1943	Occupy
1891	His Highness	1908	Maskette	1927	Anita Peabody	1944	Pavot
1892	Morello	1909	Sweep	1928	High Strung	1945	Star Pilot
1893	Domino	1910	Novelty	1929	Whichone	1946	First Flight
1894	The Butterflies	1913	Pennant	1930	Jamestown	1947	Citation
1895	Requital	1914	Trojan	1931	Top Flight	1948	Blue Peter
1896	Ogden	1915	Thunderer	1932	Kerry Patch	1949	Guillotine
1897	L'Alouette	1916	Campfire	1933	Singing Wood	1950	Battlefield
1898	Martimas	1917	Papp	1934	Chance Sun	1951	Tom Fool
1899	Charcornac	1918	Dunboyne	1935	Tintagel	1952	Native Dancer
1900	Ballyhoo Bey	1919	Man o' War	1936	Pompoon	1953	Porterhouse
1901	Yankee	1920	Step Lightly	1937	Menow	1954	Nashua
1902	Savable	1921	Bunting	1938	Porter's Mite	1955	Nail
1903	Hamburg Belle	1922	Sally's Alley	1939	Bimelech	1956	Bold Ruler
1904	Artful	1923	St. James	1940	Our Boots	1957	Jester

EPSOM DERBY

Epsom Downs, England; 3-year-olds; 1 mile, 885 yards.

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1780	Diomed	1801	Eleanor	1822	Moses	1843	Cotherstone
1781	Y. Eclipse	1802	Tyrant	1823	Emilius	1844	Orlando
1782	Assassin	1803	Ditto	1824	Cedric	1845	Merry Monarch
1783	Saltram	1804	Hannibal	1825	Middleton	1846	Pyrrhus the First
1784	Sergeant	1805	Card. Beaufort	1826	Lap Dog	1847	Cossack
1785	Aimwell	1806	Paris	1827	Mameluke	1848	Serplice
1786	Noble	1807	Election	1828	Cadlad	1849	T. Flying Dutchman
1787	Sir P. Teazle	1808	Pan	1829	Frederick	1850	Voltigeur
1788	Sir Thomas	1809	Pope	1830	Priam	1851	Teddington
1789	Skyscraper	1810	Whalebone	1831	Spaniel	1852	Dan. O'Rourke
1790	Rhadamanthus	1811	Phantom	1832	St. Giles	1853	W. Australian
1791	Eager	1812	Octavius	1833	Dangerous	1854	Andover
1792	John Bull	1813	Smolensko	1834	Plenipotentiary	1855	Wild Dayrell
1793	Waxy	1814	Blucher	1835	Mundig	1856	Ellinton
1794	Daedalus	1815	Whisker	1836	Bay Middleton	1857	Blink Bonny
1795	Spread Eagle	1816	Prince Leopold	1837	Phosphorus	1858	Beadsman
1796	Didelot	1817	Azor	1838	Amato	1859	Musjid
1797	Colt by Fidget	1818	Sam	1839	Bloomsbury	1860	Thormanby
1798	Sir Harry	1819	Tiresias	1840	Little Wonder	1861	Kettledrum
1799	Archduke	1820	Sailor	1841	Coronation	1862	Caractacus
1800	Champion	1821	Gustavus	1842	Attila	1863	Macaroni

Epsom Derby (Cont.)

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1864	Blair Athol	1888	Ayrshire	1913	Abouyeur	1936	Mahmoud
1865	Gladiateur	1889	Donovan	1914	Durbar II†	1937	Mid-Day Sun
1866	Lord Lyon	1890	Sanfoin	1915	Pommern	1938	Bois Roussel
1867	Hermit	1891	Common	1916	Finnella	1939	Blue Peter
1868	Blue Gown	1892	Sir Hugo	1917	Gay Crusader	1940	Pont l'Eveque
1869	Pretender	1893	Isinglass	1918	Gainsborough	1941	Owen Tudor
1870	Kingcraft	1894	Ladas	1919	Grand Parade	1942	Watling Street
1871	Favonius	1895	Sir Visto	1920	Spion Kop	1943	Straight Lead
1872	Cremorne	1896	Persimmon	1921	Humorist	1944	Ocean Swell
1873	Doncaster	1897	Galtee More	1922	Captain Cuttle	1945	Dante
1874	Geo. Frederick	1898	Jeddah	1923	Papyrus	1946	Airborne
1875	Calopin	1899	Flying Fox	1924	Sansovino	1947	Pearl Diver
1876	Kisber	1900	Diamond Jubilee	1925	Manna	1948	My Love
1877	Silbio	1901	Volodyovskij†	1926	Coronach	1949	Nimbus
1878	Sefton	1902	Ard Patrick	1927	Call Boy	1950	Galcador
1879	Sir Bevv's	1903	Rock Sand	1928	Felstead	1951	Arctic Prince
1880	Bend Or	1904	St. Amant	1929	Trigo	1952	Tulyar
1881	Iroquoist	1905	Cicero	1930	Blenheim	1953	Pinza
1882	Shotover	1906	Spearmint	1931	Cameronian	1954	Never Say Diet†
1883	St. Blaise	1907	Orbyt†	1932	April the Fifth	1955	Phil Drake
1884*	St. Gatien	1908	Signorinetta	1933	Hyperion	1956	Lavadin
	Harvester	1909	Minoru	1934	Windsor Lad	1957	Crepello
1885	Melton	1910	Lemberg	1935	Bahram		
1886	Ormonde	1911	Sunstar				
1887	Mer. Hampton	1912	Tagalie				

* Dead heat. † American bred or owned.

FLAMINGO STAKES

Hialeah Park; 3-year-olds; 1 1/8 miles

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1926	Torchet	1936	Brevity	1944	Stir Up	1952	Blue Man*
1929	Upset Lad	1937	Court Scandal	1946	Round View	1952	Charlie McAdam*
1930	Titus	1938	Lawrin	1947	Faultless	1953	Straight Face
1931	Lightning Bolt	1939	Technician	1948	Citation	1954	Turn-to
1932	Evening	1940	Woof Woof	1949	Olympia	1955	Nashua
1933	Charley O.	1941	Dispose	1950	Oil Capitol	1956	Needles
1934	Time Clock	1942	Requested	1951	Yildiz	1957	Bold Ruler
1935	Black Helen						

* Two divisions.

GRAND NATIONAL STEEPLECHASE

Liverpool, England; 6-year-olds and over; 4 miles, 856 yards (Aintree Course)

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1839	Lottery	1868	The Lamb	1897	Manifesto	1926	Jack Horner
1840	Jerry	1869	The Colonel	1898	Drogheda	1927	Sprig
1841	Charity	1870	The Colonel	1899	Manifesto	1928	Tipperary Tim
1842	Gaylad	1871	The Lamb	1900	Ambush II	1929	Gregalach
1843	Vanguard	1872	Casse Tete	1901	Gruodon	1930	Shaun Goilin
1844	Pioneer	1873	Disturbance	1902	Shannon Lass	1931	Grakle
1845	Cure All	1874	Reugny	1903	Drumcree	1932	Forbra
1846	Pioneer	1875	Pathfinder	1904	Moifaa	1933	Kellsboro Jack†
1847	Matthew	1876	Regal	1905	Kirkland	1934	Golden Miller
1848	Chandler	1877	Austerlitz	1906	Ascetic's Silver	1935	Reynoldstown
1849	Peter Simple	1878	Shifnal	1907	Eremon	1936	Reynoldstown
1850	Abd el Kader	1879	The Liberator	1908	Rubio†	1937	Royal Mail
1851	Abd el Kader	1880	Empress	1909	Lutteur III	1938	Battleship†
1852	Miss Mowbray	1881	Woodbrook	1910	Jenkinstown	1939	Workman
1853	Peter Simple	1882	Seaman	1911	Glenside	1940	Bogskar
1854	Bourton	1883	Zedone	1912	Jerry M	1946	Lovely Cottage
1855	Wanderer	1884	Voluptuary	1913	Covertcoat	1947	Caughoo
1856	Freetrader	1885	Rouquetfort	1914	Sunloch	1948	Sheila's Cottage
1857	Emigrant	1886	Old Joe	1915	Ally Sloper	1949	Russian Hero
1858	Little Charley	1887	Gamecock	1916*	Bermouth	1950	Freebooter
1859	Half Caste	1888	Playfair	1917*	Ballymacad	1951	Nickel Coin
1860	Anatis	1889	Frigate	1918*	Poethyln	1952	Teal
1861	Jealousy	1890	Ilex	1919*	Poethyln	1953	Early Mist
1862	Huntsman	1891	Come Away	1920	Troytown	1954	Royal Tan
1863	Emblem	1892	Father O'Flynn	1921	Shaun Spadah	1955	Quare Times
1864	Emblematic	1893	Cloister	1922	Music Hall	1956	E. S. B.
1865	Alcibiade	1894	Why Not	1923	Sgt. Murphy†	1957	Sundew
1866	Salamander	1895	W. M. f. Borneo	1924	Master Rob†		
1867	Cortolvin	1896	The Soarer	1925	Double Chance		

* Substitute race.

† American bred or owned.

HOLLYWOOD GOLD CUP**Hollywood Park; 3-year-olds and over; 1½ miles.**

Year	Winner, age	Year	Winner, age	Year	Winner, age	Year	Winner, age
1938	Seabiscuit (5)	1945	Challenge Me (4)	1950	Noor (5)	1955	Rejected (5)
1939	Kayak II (4)	1946	Triplegate (5)	1951	Citation (6)	1956	Swaps (4)
1940	Challedon (4)	1947	Cover Up (4)	1952	Two Lea (6)	1957	Round Table (3)
1941	Big Pebble (5)	1948	Shannon II (7)	1953	Royal Serenade (5)		
1944	Happy Issue (4)	1949	Solidarity (4)	1954	Correspondent (4)		

SANTA ANITA DERBY**Santa Anita Park; 3-year-olds; 1½ miles**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1935	Gille	1940	Sweepida	1948	Salmagundi	1953	Chanlea
1936	He Did	1941	Porter's Cap	1949	Old Rockport	1954	Determine
1937	Fairy Hill	1945	Bymeabond	1950	Your Host	1955	Swaps
1938	Stagehand	1946	Knockdown	1951	Rough'n Tumble	1956	Terrang
1939	Ciencia	1947	On Trust	1952	Hill Gail	1957	Sir William

SANTA ANITA HANDICAP**Santa Anita Park; 3-year-olds and over; 1½ miles.**

Year	Winner, age	Year	Winner, age	Year	Winner, age	Year	Winner, age
1935	Azucar (7)	1940	Seabiscuit (7)	1948	Talon (6)	1953	Mark-Ye-Well (4)
1936	Top Row (5)	1941	Bay View (4)	1949	Vulcan's Forge (4)	1954	Rejected (4)
1937	Rosemont (5)	1945	Thumbs Up (6)	1950	Noor (5)	1955	Poona II (4)
1938	Stagehand (3)	1946	War Knight (6)	1951	Moonrush (5)	1956	Bobby Brocato (5)
1939	Kayak II (4)	1947	Olhaverly (8)	1952	Miche (7)	1957	Corn Husker (4)

TRAVERS STAKES**Saratoga; 3-year-olds; 1½ miles**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1864	Kentucky	1886	Inspector B	1914	Roamer	1936	Granville
1865	Maiden	1887	Carey	1915	Lady Rotha	1937	Burning Star
1866	Merrill	1888	Sir Dixon	1916	Spur	1938	Thanksgiving
1867	Ruthless	1889	Long Dance	1917	Omar Khayyam	1939	Eight Thirty
1868	The Banshee	1890	Sir John	1918	Sun Briar	1940	Fenelon
1869	Glenelg	1891	Vallera	1919	Hannibal	1941	Whirlaway
1870	Kingfisher	1892	Azra	1920	Man o' War	1942	Shut Out
1871	Harry Bassett	1893	Stowaway	1921	Sporting Blood	1943	Eurasian
1872	Joe Daniels	1894	Henry of Navarre	1922	Little Chief	1944	By Jimminy
1873	Tom Bowling	1895	Liza	1923	Wilderness	1945	Adonis
1874	Attila	1897	Rensselaer	1924	Sun Flag	1946	Natchez
1875	D'Artagnan	1901	Blues	1925	Dangerous	1947	Young Peter
1876	Sultana	1902	Hermis	1926	Mars	1948	Ace Admiral
1877	Baden Baden	1903	Ada Nay	1927	Brown Bud	1949	Arise
1878	Duke of Magenta	1904	Broomstick	1928	Petee-Wrack	1950	Lights Up
1879	Falsetto	1905	Dandelion	1929	Beacon Hill	1951	Battlefield
1880	Grenada	1906	Gallivant	1930	Jim Dandy	1952	One Count
1881	Hindoo	1907	Frank Gill	1931	Twenty Grand	1953	Native Dancer
1882	Carley B	1908	Dorante	1932	War Hero	1954	Fisherman
1883	Barnes	1909	Hilarious	1933	Inlander	1955	Thinking Cap
1884	Rataplan	1910	Dalmatian	1934	Observant	1956	Oh Johnny
1885	Bersan	1913	Rock View	1935	Gold Foam	1957	Gallant Man

WASHINGTON PARK FUTURITY**Washington Park; 2-year-olds; 3/4 mile.**

Year	Winner	Year	Winner	Year	Winner	Year	Winner
1937	Tiger	1944	Free for All	1949	Curtice	1954	Georgian
1940	Porter's Cap	1945	Revoked	1950	To Market	1955	Swoon's Son
1941	Alsab	1946	Education	1951	Oh Leo	1956	Greek Game
1942	Occupation	1947	Bewitch	1952	Mr. Paradise	1957	Jewel's Reward
1943	Occupy	1948	Model Cadet	1953	Hasty Road		

WIDENER HANDICAP**Hialeah Park; 3-year-olds and over; 1½ miles**

Year	Winner, age	Year	Winner, age	Year	Winner, age	Year	Winner, age
1936	Mantagna (4)	1941	Big Pebble (5)	1948	El Mono (4)	1953	Oil Capitol (6)
1937	Columbiana (4)	1942	The Rhymer (4)	1949	Coeatown (4)	1954	Landlocked (4)
1938	War Admiral (4)	1944	Four Freedoms (4)	1950	Royal Governor (6)	1955	Hasty Road (4)
1939	Bull Lea (4)	1946	Armed (5)	1951	Sunglow (4)	1956	Nashua (4)
1940	Many Stings (5)	1947	Armed (6)	1952	Spartan Valor (4)	1957	Bardstown (5)

WORLD RECORDS

Distance	Horse, age, weight, track and location	Date	Time
$\frac{1}{4}$	Big Racket, 4, 111, Hipodromo de las Americas, Mexico City, Mexico.....	February 5, 1945	:20%
$\frac{2}{2} f$	Pichirilo, 2, 117, Hipodromo de las Americas, Mexico City, Mexico.....	March 25, 1954	:26%
$\frac{3}{8}$	Atoka, 6, 105, Butte, Mont.....	September 7, 1906	:33%
$\frac{3}{2} f$	Joe Blair, 5, 115, Juarez, Mexico.....	February 5, 1916	:39
$\frac{1}{2}$	Beau Madison, 2, 120, Turf Paradise, Phoenix, Ariz.....	March 30, 1957	:45
$\frac{4}{2} f$	Saggy, 2, 117, Havre de Grace, Md.....	April 23, 1947	:51%
	Bolero U., 2, 116, Gulfstream Park, Hallandale, Fla.....	April 9, 1957	:51%
$\frac{5}{8}$	Lucky Mel, 2, 122, Hollywood Park, Inglewood, Calif.....	June 28, 1956	:56%
	Bettyanbull, 4, 118, Turf Paradise, Phoenix, Ariz.....	February 1, 1958	:56%
$5\frac{1}{2} f$	Porterhouse, 6, 125, Hollywood Park, Inglewood, Calif.....	June 13, 1957	1:02%
$5\frac{1}{2} f$	Fighting Fox, 4, 126, Empire City, Yonkers, N. Y.....	July 8, 1939	1:07%
	Doublrab, 4, 130, Empire City, Yonkers, N. Y.....	July 18, 1942	1:07%
$\frac{3}{4}$	*Gelding by Blink-Broken Tendril, 3, 123, Brighton, England.....	August 6, 1929	1:06%
	Dumpty Humpty, 4, 115, Golden Gate Fields, Albany, Calif.....	November 2, 1957	1:08
$6\frac{1}{2} f$	Federal Hill, 3, 122, Gulfstream Park, Hallandale, Fla.....	March 25, 1957	1:15
$\frac{7}{8}$	El Drag, 4, 115, Hollywood Park, Inglewood, Calif.....	May 21, 1955	1:20
1 mi.	Swaps, 4, 128, Hollywood Park, Inglewood, Calif.....	June 9, 1956	1:33%
1 mi. 70 yd.	Mark Antony, 4, 115, Rockingham Park, Salem, N. H.....	September 6, 1958	1:39%
$1\frac{1}{4}$	Swaps, 4, 130, Hollywood Park, Inglewood, Calif.....	June 23, 1956	1:39
$1\frac{1}{4}$	Noor, 5, 123, Golden Gate Fields, Albany, Calif.....	June 17, 1950	1:46%
$1\frac{1}{4}$	Alidon, 4, 116, Hollywood Park, Inglewood, Calif.....	July 4, 1955	1:46%
	Swaps, 4, 130, Hollywood Park, Inglewood, Calif.....	July 4, 1956	1:46%
	Gen. Duke, 3, 122, Gulfstream Park, Hallandale, Fla.....	March 30, 1957	1:46%
	Round Table, 4, 130, Santa Anita Park, Arcadia, Calif.....	February 15, 1958	1:46%
$1\frac{3}{4}$	Fleet Bird, 4, 123, Golden Gate Fields, Albany, Calif.....	October 24, 1953	1:52%
$1\frac{3}{4}$	Noor, 5, 127, Golden Gate Fields, Albany, Calif.....	June 24, 1950	1:58%
$1\frac{3}{4}$	Man o' War, 3, 126, Belmont Park, Elmont, N. Y.....	June 12, 1920	2:14%
$1\frac{1}{2}$	The Bastard, 3, 124, Newmarket, England.....	October 18, 1929	2:23
$1\frac{1}{2}$	Swaps, 4, 130, Hollywood Park, Inglewood, Calif.....	July 25, 1956	2:38%
1 mi. $5\frac{1}{2} f$	Distribute, 9, 109, River Downs, Cincinnati, Ohio.....	September 7, 1940	2:51%
$1\frac{3}{4}$	Noor, 5, 117, Santa Anita Park, Arcadia, Calif.....	March 4, 1950	2:52%
$1\frac{1}{4}$	Pharawell, 5, 119, Gulfstream Park, Hallandale, Fla.....	April 8, 1947	3:13%
2	Polazel, 3, 142, Salisbury, England.....	July 8, 1924	3:15
2 mi. 40 yd.	Winning Mark, 4, 107, Thistle Down Park, Cleveland, Ohio.....	July 20, 1940	3:29%
2 mi. 70 yd.	Filisteo, 7, 116, Pimlico, Baltimore, Md.....	October 30, 1941	3:30%
$2\frac{1}{4}$	Midafternoon, 4, 126, Jamaica, Jamaica, N. Y.....	November 15, 1956	3:29%
$2\frac{1}{4}$	Centurion, 5, 119, Newbury, England.....	September 29, 1923	3:35
$2\frac{1}{4}$	Santiago, 5, 112, Narragansett Park, Pawtucket, R. I.....	September 27, 1941	3:51%
$2\frac{1}{4}$	Dakota, 4, 116, Lingfield, England.....	May 27, 1927	3:37%
$2\frac{1}{4}$	Wiki Jack, 4, 97, Tijuana, Mexico.....	February 8, 1925	4:15
$2\frac{1}{4}$	Miss Grillo, 6, 118, Pimlico, Baltimore, Md.....	November 12, 1948	4:14%
$2\frac{1}{4}$	Worthman, 5, 101, Tijuana, Mexico.....	February 22, 1925	4:51%
$2\frac{1}{4}$	Shot Put, 4, 126, Washington Park, Homewood, Ill.....	August 14, 1940	4:48%
$2\frac{1}{4}$	Bosh, 5, 100, Tijuana, Mexico.....	March 8, 1925	5:23
3	Farragut, 5, 113, Agua Caliente, Mexico.....	March 9, 1941	5:15
$3\frac{1}{4}$	Winning Mark, 4, 104, Washington Park, Homewood, Ill.....	August 21, 1940	6:13
4	Sotemia, 5, 119, Churchill Downs, Louisville, Ky.....	October 7, 1912	7:10%

* $\frac{3}{4}$ mile course at Brighton is started on a hill and is down grade to within one-third of a mile of the finish.

Straight Course

$\frac{3}{4}$	Bob Wade, 4, 122, Butte, Mont.....	August 20, 1890	:21%
$\frac{3}{4}$	King Rhymer, 2, 118, Santa Anita Park, Arcadia, Calif.....	February 27, 1947	:32
$\frac{1}{2}$	Gloaming, 6, 127, Trentham, Wellington, New Zealand.....	January 12, 1921	:45
$\frac{4}{2} f$	The Pimpernel, 2, 118, Belmont Park, Elmont, N. Y.....	May 17, 1951	:49%
	Reneged, 2, 118, Belmont Park, Elmont, N. Y.....	June 7, 1955	:49%
$\frac{5}{8}$	Devineress, 3, 103, Epsom Downs, Epsom, England.....	June 2, 1933	:54%
$5\frac{1}{2} f$	Delegate, 7, 113, Belmont Park, Elmont, N. Y.....	October 10, 1951	1:01%
$\frac{3}{4}$	Vestment, 2, 115, Belmont Park, Elmont, N. Y.....	October 15, 1954	1:07%
$6\frac{1}{2} f$	Porter's Mite, 2, 119, Belmont Park, Elmont, N. Y.....	September 17, 1938	1:14%
	Native Dancer, 2, 122, Belmont Park, Elmont, N. Y.....	September 27, 1952	1:14%
$\frac{7}{8}$	First Edition, 4, 126, Hurst Park, Hampton Court, England.....	May 25, 1926	1:20
1	Mopus, 3, 105, Brighton, England.....	June 22, 1939	1:32
$1\frac{1}{4}$	Banquet, 3, 108, Monmouth Park, N. J.....	July 17, 1890	2:03%

Jockey Wins 12 Straight Races

A jockey in Southern Rhodesia equaled a world record in 1958 by riding 12 consecutive winners at a horse race meeting. Pieter Strobel started his streak at the

Bulawayo Turf Club on June 7 by winning the last race. On the next racing day, June 28, he won all six races. Then on July 5, he won the first five.

LEADING JOCKEYS SINCE 1935

Year	Jockey	Mounts	Win- Pct.	Un- placed	Pct.
1935	C. Stevenson	1,099	206	578	.19
1936	B. James	1,106	245	505	.22
1937	J. Adams	1,265	260	642	.21
1938	J. Longden	1,150	236	575	.21
1939	D. Meade	1,284	255	628	.20
1940	E. Dew	1,377	287	709	.21
1941	D. Meade	1,164	210	611	.18
1942	J. Adams	1,120	245	540	.22
1943	J. Adams	1,069	228	511	.21
1944	T. Atkinson	1,539	287	808	.19
1945	J. D. Jessop	1,085	290	445	.27
1946	T. Atkinson	1,377	233	758	.17
1947	J. Longden	1,327	316	566	.24
1948	J. Longden	1,197	319	494	.27
1949	G. Glisson	1,347	270	679	.20
	W. Shoemaker	1,640	388	756	.24
1950	J. Culmone	1,676	388	787	.23
1951	C. Burr	1,162	310	585	.24
1952	A. DeSpirito	1,482	390	633	.26
1953	W. Shoemaker	1,683	485	686	.29
1954	W. Shoemaker	1,251	380	508	.30
1955	W. Hartack	1,702	417	772	.25
1956	W. Hartack	1,387	347	604	.25
1957	W. Hartack	1,238	341	511	.25

LEADING TRAINERS SINCE 1935

(Winners saddled)

Year	Name	Winners	Earnings
1935	H. Jacobs	114	\$95,155
1936	H. Jacobs	177	155,789
1937	H. Jacobs	134	142,474
1938	H. Jacobs	109	116,609
1939	H. Jacobs	106	100,907
1940	D. Womeldorff	108	112,137
1941	H. Jacobs	123	165,964
1942	H. Jacobs	133	186,371
1943	H. Jacobs	128	210,775
1944	H. Jacobs	117	306,821
1945	S. Lipiec	127	238,361
1946	W. Molter	122	329,725
1947	W. Molter	155	833,970
1948	W. Molter	184	1,015,547
1949	W. Molter	129	696,184
	W. H. Bishop	129	236,131
1950	R. H. McDaniel	156	441,590
1951	R. H. McDaniel	164	539,204
1952	R. H. McDaniel	168	573,837
1953	R. H. McDaniel	211	751,957
1954	R. H. McDaniel	206	834,390
1955	F. H. Merrill, Jr.	154	298,794
1956	V. R. Wright	177	532,344
1957	V. R. Wright	192	527,271

LEADING MONEY-WINNING OWNERS

Year	Name	Amount
1935	A. G. Vanderbilt	\$303,605
1936	Milky Way Farm Stable	206,450
1937	Mrs. Charles S. Howard	214,559
1938	H. Maxwell Howard	226,495
1939	Belair Stud	284,250
1940	Charles S. Howard	334,120
1941	Calumet Farm	475,091
1942	Greentree Stable	414,432
1943	Calumet Farm	267,915
1944	Calumet Farm	601,660
1945	Maine Chance Farm	589,170
1946	Calumet Farm	564,095
1947	Calumet Farm	1,402,436
1948	Calumet Farm	1,269,710
1949	Calumet Farm	1,128,942
1950	Brookmeade Stable	651,399
1951	Greentree Stable	637,242
1952	Calumet Farm	1,283,197
1953	A. G. Vanderbilt	987,306
1954	King Ranch	837,615
1955	Hasty House Farm	832,879
1956	Calumet Farm	1,057,383
1957	Calumet Farm	1,150,910

TOP MONEY-WINNING HORSES

Year	Horse and age	Starts	1st	Amount
1935	Omaha (3)	9	6	\$142,255
1936	Granville (3)	11	7	110,295
1937	Seabiscuit (4)	15	11	168,580
1938	Stagehand (3)	15	8	189,710
1939	Challedon (3)	15	9	184,535
1940	Bimelech (3)	7	4	110,005
1941	Whirlaway (3)	20	13	272,386
1942	Shut Out (3)	12	8	238,872
1943	Count Fleet (3)	6	6	174,055
1944	Pavot (2)	8	8	179,040
1945	Busher (3)	13	10	273,735
1946	Assault (3)	15	8	424,195
1947	Armed (6)	17	11	376,325
1948	Citation (3)	20	19	709,470
1949	Ponder (3)	21	9	321,825
1950	Noor (5)	12	7	346,940
1951	Counterpoint (3)	15	7	250,525
1952	Crafty Admiral (4)	16	9	277,225
1953	Native Dancer (3)	10	9	513,425
1954	Determine (3)	15	10	328,700
1955	Nashua (3)	12	10	752,550
1956	Needles (3)	8	4	440,850
1957	Round Table (3)	22	15	600,285

Round Table Racing's Biggest Money Winner

Round Table, 4-year-old colt owned by Travis Kerr of Oklahoma City, displaced Nashua as the top money winning horse of all time on Oct. 11, 1958. His victory that day in the Hawthorne Gold Cup at Chicago added \$73,250 to Round Table's earnings to give him a lifetime total of \$1,336,364. Nashua's old record was \$1,288,565. The Gold Cup was Round Table's 52nd race in his career and his 34th triumph. The colt had scored six seconds and three thirds.

Horses which led the list of all-time money winners before Round Table:

	Starts	1st	2d	3d	Earnings
Nashua	30	22	4	1	\$1,288,565
Citation	45	32	10	2	1,085,670
Stymie	131	35	33	28	918,485
Armed	81	41	20	10	817,475
Assault	42	18	6	7	675,470
Whirlaway	60	32	15	9	561,161
Seabiscuit	89	33	15	13	437,730
Sun Beau	74	33	12	10	376,744

HARNESS RACING

OLIVER WENDELL HOLMES, the famous Autocrat of the Breakfast Table, wrote that the running horse was a gambling toy but the trotting horse was useful and, furthermore, "horse-racing is not a republican institution; horse-trotting is." Oliver Wendell Holmes was a born and bred New Englander and New England was the nursery of the harness racing sport in America. Pacers and trotters were matters of local pride and prejudice in Colonial New England and, shortly after the Revolution, the Messenger and Justin Morgan strains produced many winners in harness racing "matches" along the turnpikes of New York, Connecticut, Rhode Island, Massachusetts, Vermont, and New Hampshire.

There was English thoroughbred blood in Messenger and Justin Morgan and, many years later, it was blended in Rysdyk's

Hambletonian, foaled in 1849. Hambletonian was not particularly fast under harness but his descendants have had almost a monopoly of prizes, titles, and records in the harness racing game. Hambletonian was purchased as a foal with its dam for a total of \$124 by William Rysdyk of Goshen, N. Y., and made a modest fortune for the purchaser.

Trotters and pacers often were raced under saddle in the old days and, in fact, the custom still survives in some places in Europe. Dexter, the great trotter that lowered the mile record from 2:19 $\frac{1}{4}$ to 2:17 $\frac{1}{4}$ in 1867, was said to handle just as well under saddle as when pulling a sulky. But as sulkies were lightened in weight and improved in design, trotting under saddle became less common and finally faded out in this country.

WORLD RECORDS

Established in a Race or Against Time at One Mile

Source: Larry Evans, Public Relations Director, United States Trotting Association.

TROTTING ON MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:55 1/4	Greyhound	S. F. Palin	Lexington, Ky.	1938
Yearling.....	2:15 1/5	Rilda Rose	Ike Bailey	Lexington, Ky.	1955
2-year-old.....	1:59 $\frac{1}{2}$	Yankee Lass	Frank Ervin	Lexington, Ky.	1957
3-year-old.....	1:58	Titan Hanover	Harry Pownall	Du Quoin, Ill.	1945
	1:58	Emily's Pride	Flick Nipe,	Lexington, Ky.	1958
4-year-old.....	1:57 1/4(r)	Greyhound	S. F. Palin	Springfield, Ill.	1936
	1:57 1/4	Spencer Scott	Fred Egan	Lexington, Ky.	1941

TROTTING ON HALF-MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:59 3/4	Greyhound	S. F. Palin	Goshen, N. Y.	1937
Yearling.....	2:21 1/2	U. Forbes	H. C. Moody	Louisville, Ky.	1913
2-year-old.....	2:03 1/2(r)	Titan Hanover	Harry Pownall	Delaware, Ohio	1944
3-year-old.....	2:01 2/5(r)	Galophone	Wayne Smart	Delaware, Ohio	1955
	2:01 2/5	Hickory Smoke	John Simpson	Delaware, Ohio	1957
4-year-old.....	1:59 4/5(r)	Darn Safe	B. J. Schue	Saratoga Springs, N. Y.	1957

PACING ON MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:55	Billy Direct	Vic Fleming	Lexington, Ky.	1938
	1:55(r)	Adios Harry	Luther Lyons	Vernon, N. Y.	1955
Yearling.....	2:14 3/4	Royal Lady 2nd	O. M. Powell	Indianapolis	1939
2-year-old.....	1:58(r)	Torpid	John Simpson	Lexington, Ky.	1956
3-year-old.....	1:57(r)	Good Counsel	Frank Ervin	Vernon, N. Y.	1957
4-year-old.....	1:55	Billy Direct	Vic Fleming	Lexington, Ky.	1938
	1:55(r)	Adios Harry	Luther Lyons	Vernon, N. Y.	1955

PACING ON HALF-MILE TRACK

	Record	Holder	Driver	Where Made	Year
All age.....	1:58 3/5(r)	Hi-Lo's Forbes	Henry Clukey	Westbury, N. Y.	1953
Yearling.....	2:18 1/4	Lady Patch	O. M. Powell	*	1924
2-year-old.....	2:01 2/5(r)	Good Counsel	Frank Ervin	Delaware, Ohio	1956
3-year-old.....	2:00(r)	Tar Heel	Adelbert Cameron	Delaware, Ohio	1951
	2:00(r)	Torpid	John Simpson	Saratoga Springs, N. Y.	1957
4-year-old.....	1:59 2/5(r)	Adios Harry	Luther Lyons	Westbury, N. Y.	1955
	1:59 $\frac{1}{2}$ (r)	Gold Worthy	Wayne Smart	Solon, Ohio	1957

(r) Record made in race. * Data unavailable.

Betting Record for Pari-Mutuel Harness Racing

A record for betting at a pari-mutuel harness racing track was established at Roosevelt Raceway, Westbury, N. Y., on May 29, 1958, when a crowd of 37,046 wagered \$2,502,196 on the nine-race program.

The previous record, set at Roosevelt Raceway on Aug. 17, 1957, was \$2,388,674, wagered by a crowd of 50,336. The latter figure was an attendance record for harness racing.

HISTORY OF TRADITIONAL HARNES RACING STAKES

The Hambletonian

Three-year-old trotters. One mile. Raced at Syracuse, N. Y., 1926, 1928; at Lexington, Ky., 1927, 1929; at Goshen, N. Y., 1930-42, 1944-56; at Yonkers, N. Y., 1943; at Du Quoin, Ill., since 1957.

Year	Winner	Driver	Best time	Total Purse
1926	Guy McKinney	Nat Ray	2.04 3/4	\$73,451.32
1927	Iosola's Worthy	Marvin Childs	2.03 3/4	54,694.44
1928	Spencer	W. H. Leese	2.02 1/2	66,226.25
1929	Walter Dear	W. R. Cox	2.02 3/4	60,309.60
1930	Hanover's Bertha	Tom Berry	2.03	56,859.84
1931	Calumet Butler	R. McMahon	2.03 1/4	50,921.39
1932	The Marchioness	W. Caton	(a) 2.01 1/4	49,489.26
1933	Mary Reynolds	Ben White	2.03 3/4	40,459.88
1934	Lord Jim	H. M. Parshall	2.02 3/4	25,845.44
1935	Greyhound	Sep Palin	2.02 1/4	33,321.00
1936	Rosalind	Ben White	2.01 3/4	35,643.83
1937	Shirley Hanover	H. Thomas	2.01 1/2	37,912.58
1938	McLin Hanover	H. Thomas	2.02 1/4	37,962.37
1939	Peter Astra	H. M. Parshall	2.04 1/4	40,502.46
1940	Spencer Scott	F. Egan	2.02	43,685.45
1941	Bill Gallon	Lee Smith	2.05	38,729.86
1942	The Ambassador	Ben White	2.04	38,954.38
1943	Volo Song	Ben White	2.02 1/2	42,298.03
1944	Yankee Maid	H. Thomas	2.04	33,577.12
1945	Titan Hanover	H. Pownall	2.04	50,196.96
1946	Chestertown	Tom Berry	2.02 1/2	50,995.57
1947	Hoot Mon	Sep Palin	2.00	46,267.93
1948	Demon Hanover	H. R. Hoyt	2.02	59,941.18
1949	Miss Tilly	Fred Egan	2.01 2/5	89,791.08
1950	Lusty Song	Del Miller	2.02	75,209.12
1951	Mainliner	Guy Crippen	2.02 3/5	95,263.93
1952	Sharp Note	Bl Shively	2.02 2/5	87,637.55
1953	Helicopter	Harry Harvey	(b) 2.01 3/5	117,117.98
1954	Newport Dream	Adelbert Cameron	2.02 4/5	106,830.68
1955	Scott Frost	Joe O'Brien	2.00 3/5	86,863.32
1956	The Intruder	Ned Bower	2.01 2/5	100,603.99
1957	Hickory Smoke	John Simpson	2.01	111,126.25

(a) By Hollywood Dennis. (b) By Morse Hanover.

1958 HAMBLETONIAN

Emily's Pride (Nipe), 1-12-1; Little Rocky (O'Brien), 14-1-4; Mr. Saunders (Riegle), 2-11-3; Sandalwood (Baldwin), 4-14-2; McColby (Dana Cameron), 5-2-5; Sharpshooter (Pownall), 3-9-7; Great Lullwater (Miller), 11-3-6; Mix Hanover (Huber), 9-4-9; Lumber Along (Corley), 12-5-10; Gang Awa (Simpson), 6-13-8; Baron Colby (Chapman), 10-6-12; Record Mat (Del Cameron), 7-7-11; Spunky

Hanover (Camper), 8-8-13; Florella Hanover (Avery), 13-10-scratched.

Time of heats—2:00 1/5, 2:02, 1:59 4/5 (3d heat time, Hambletonian record; old record, 2:00, Hoot Mon 1947). Winner, Emily's Pride, driven by Flick Nipe, owned by Walnut Hall and Castleton Farms, Lexington, Ky. Total purse—\$106,719.24. Winner's purse—\$62,750.92.

Little Brown Jug

Three-year-old pacers. Raced at Delaware County Fair Grounds, Delaware, Ohio.

Year	Winner	Driver	Best time	Total Purse
1946	Ensign Hanover	Wayne Smart	(a) 2:02 3/4	\$35,358.65
1947	Forbes Chief	Adelbert Cameron	2:05	38,200.00
1948	Knight Dream	Frank Safford	2:07 1/5	47,528.58
1949	Good Time	Frank Ervin	2:03 2/5	58,281.30
1950	Dudley Hanover	Del Miller	2:02 3/5	56,525.47
1951	Tar Heel	Adelbert Cameron	2:00	66,280.55
1952	Meadow Rice	Wayne Smart	2:01 3/5	60,463.35
1953	Keystoner	Frank Ervin	(b) 2:02 3/5	54,972.21
1954	Adios Harry	Morris MacDonald	(c) 2:01 2/5	69,332.06
1955	Quick Chief	Bill Haughton	(d) 2:00	66,608.83
1956	Noble Adios	John Simpson	2:00 4/5	52,666.05
1957	Torpid	John Simpson	2:00 4/5	73,528.15

(a) By Royal Chief. (b) By Newport Chief. (c) By Phantom Lady. (d) By Dottle's Pick.

1958 LITTLE BROWN JUG

Shadow Wave (O'Brien), 1-1; Thorpe Hanover (Miller), 2-2; O'Brien Hanover (Jordan), 3-4; Meadow Bucky (Simpson), 9-3; Kwik (Fitzpatrick), 4-7; Harry's Dream (W. Kirk), 7-5; Ike Frost (Haughton), 5-8; Bye Bye Bird (Taylor), 6-6; S. W. (Stiles), 8-10; Raider Frost (A. Cameron), 10-9;

Noble Dream (Walker), 11-11; Flying Time (Winn), 12-12.

Time of heats—2:01, 2:01. Winner, Shadow Wave, driven by Joe O'Brien, owned by S. A. Camp Farms, Shafter, Calif. Total purse—\$65,252.94. Winner's purse—\$36,541.64.

COLLEGE COLORS AND NICKNAMES

Air Force—Silver-Blue; Falcons
 Akron—Blue-Gold; Zips
 Alabama—Crimson-White; Crimson Tide
 Alfred—Purple-Gold; Saxons
 Amherst—Purple-White; Lord Jeffs
 Arizona—Crimson-Blue; Wildcats
 Arizona State (Tempe)—Maroon-Gold; Sun Devils
 Arkansas—Cardinal-White; Razorbacks
 Army—Black-Gold-Gray; Cadets
 Auburn—Orange-Blue; Tigers
 Baylor—Green-Gold; Bears
 Boston Coll.—Maroon-Gold; Eagles
 Boston U.—Scarlet-White; Terriers
 Bowdoin—White; Polar Bears
 Bowling Green—Brown-Orange; Falcons
 Bradley—Cardinal-White; Braves
 Brigham Young—Blue-White; Cougars
 Brooklyn—Maroon-Gold; Kingsmen
 Brown—Brown-White; Bruins
 Bucknell—Orange-Blue; Bisons
 Buffalo—Blue-White; Bulls
 Butler—Blue-White; Bulldogs
 California—Blue-Gold; Bears
 Canisius—Blue-Gold; Griffins
 Carnegie Tech—Tartan Plaid; Tartans
 Catholic—Red-Black; Cardinals
 Centre—Gold-White; Colonels
 Chicago—Maroon; Maroons
 Cincinnati—Red-Black; Bearcats
 Citadel—Blue-White; Bulldogs
 City Coll. of N. Y.—Lavender; Beavers
 Clemson—Purple-Orange; Tigers
 Coast Guard—Blue-White; Cadets
 Colgate—Maroon; Red Raiders
 Coll. of Pacific—Orange-Black; Tigers
 Colorado—Silver-Gold; Buffaloes
 Columbia—Blue-White; Lions
 Connecticut—Blue-White; Huskies, Uconn
 Cornell—Carnelian-White; Big Red
 Creighton—White-Blue; Blue Jays
 Dartmouth—Green; Indians
 Davidson—Red-Black; Wildcats
 Dayton—Red-Blue; Flyers
 Delaware—Blue-Gold; Blue Hens
 Denver—Red-Gold; Pioneers
 DePaul—Scarlet-Blue; Blue Demons
 Detroit—Cardinal-White; Titans
 Drake—White-Blue; Bulldogs
 Duke—Blue-White; Blue Devils
 Duquesne—Red-Blue; Dukes
 Florida—Orange-Blue; Gators
 Fordham—Maroon; Rams
 Furman—Purple-White; Purple Hurricane
 Georgetown—Blue-Gray; Hoyas
 George Washington—Buff-Blue; Colonials
 Georgia—Red-Black; Bulldogs
 Georgia Tech—White-Gold; Yellow Jackets
 Hamilton—Buff-Blue; Continentals
 Hampden-Sydney—Garnet-Gray; Tigers
 Hardin-Simmons—Purple-Gold; Cowboys
 Harvard—Crimson; The Crimson
 Hobart—Orange-Purple; Statesmen
 Holy Cross—Purple; Crusaders
 Houston—Scarlet-White; Cougars
 Howard—Blue-White; Bisons

Idaho—Silver-Gold; Vandals
 Illinois—Orange-Blue; Illini
 Indiana—Cream-Crimson; Hoosiers
 Iowa—Gold-Black; Hawkeyes
 Iowa State—Cardinal-Gold; Cyclones
 Johns Hopkins—Blue-Black; Blue Jays
 Kansas—Crimson-Blue; Jayhawkers
 Kansas State—Purple-White; Wildcats
 Kentucky—Blue-White; Wildcats
 Knox—Purple-Gold; Siwashers
 Lafayette—Maroon-White; Leopards
 La Salle—Blue-Gold; Explorers
 Lehigh—Brown-White; Engineers
 Louisiana State—Purple-Gold; Tigers
 Louisville—Cardinal-Black; Cardinals
 Loyola (Ill.)—Maroon-Gold; Ramblers
 Maine—Blue-White; Black Bears
 Manhattan—Green-White; Jaspers
 Marquette—Blue-Gold; Warriors
 Maryland—Red-White; Terrapins
 Massachusetts—Maroon-White; Redmen
 Merchant Marine—Blue-Gray; Mariners
 Miami (Fla.)—Orange-Green-White; Hurricanes
 Miami (Ohio)—Red-White; Redskins
 Michigan—Maize-Blue; Wolverines
 Michigan State—Green-White; Spartans
 Middlebury—Blue-White; Panthers
 Minnesota—Maroon-Gold; Gophers
 Mississippi—Red-Blue; Rebels
 Mississippi State—Maroon-White; Maroons
 Missouri—Black-Gold; Tigers
 M.I.T.—Cardinal-Gray; Beavers
 Montana—Copper-Silver-Gold; Grizzlies
 Navy—Blue-Gold; Midshipmen
 Nebraska—Scarlet-Cream; Cornhuskers
 Nevada—Silver-Blue; Wolfpack
 New Hampshire—Blue-White; Wildcats
 New Mexico—Cherry-Silver; Lobos
 New York U.—Violet; Violets
 Niagara—Purple-White; Purple Eagles
 North Carolina—Blue-White; Tar Heels
 North Carolina State—Scarlet-White; Wolfpack
 North Dakota—Green-White; Sioux
 Northeastern—Red-Black; Huskies
 Northwestern—Purple-White; Wildcats
 Notre Dame—Blue-Gold; Fighting Irish
 Occidental—Orange-Black; Bengals
 Ohio State—Scarlet-Gray; Buckeyes
 Ohio U.—Green-White; Bobcats
 Oklahoma—Red-White; Sooners
 Oklahoma State—Orange-Black; Cowboys
 Omaha—Red-Black; Indians
 Oregon—Yellow-Green; Webfoots
 Oregon State—Orange-Black; Beavers
 Penn State—Blue-White; Nittany Lions
 Pennsylvania—Red-Blue; Quakers
 Pittsburgh—Blue-Gold; Panthers
 Pomona—Blue-White; Sagehens
 Princeton—Orange-Black; Tigers
 Providence—Black-White; Friars
 Purdue—Gold-Black; Boilermakers
 Rhode Island—Blue-White; Rams
 Rice—Blue-Gold; Owls
 Richmond—Red-Blue; Spiders
 Rochester—Yellow; Yellowjackets

Rollins—Blue-Gold; Tars
 R.P.I.—Cherry-White; Engineers
 Rutgers—Scarlet; The Scarlet
 St. Francis (N. Y.)—Red-Blue; Terriers
 St. John's (N. Y.)—Red-White; Redmen
 St. Joseph's (Pa.)—Crimson-Gray; Hawks
 St. Laurence—Scarlet-Brown; Larries
 St. Louis—Blue-White; Billikens
 St. Mary's (Calif.)—Red-Blue; Galloping Gaels
 San Francisco—Green-Gold; Dons
 San Jose State—Gold-White; Spartans
 Santa Clara—Cardinal-White; Broncos
 Seattle—Maroon-White; Chieftains
 Seton Hall—Blue-White; Pirates
 Sewanee—Purple-White; Tigers
 South Carolina—Garnet-Black; Gamecocks
 South Dakota—Scarlet-White; Coyotes
 So. California—Cardinal-Gold; Trojans
 So. Methodist—Red-Blue; Mustangs
 Springfield—Maroon-White; Maroons
 Stanford—Cardinal-White; Indians
 Swarthmore—Garnet; Little Quakers
 Tampa—Scarlet-Gold-Black; Spartans
 Temple—Cherry-White; Owls
 Tennessee—Orange-White; Vols
 Texas—Orange-White; Longhorns
 Texas A. & M.—Maroon-White; Aggies
 Texas Christian—Purple-White; Horned Frogs
 Texas Tech—Scarlet-Black; Red Raiders
 Toledo—Blue-Gold; Rockets
 Tufts—Blue-Brown; Jumbos
 Tulane—Green-Blue; Green Wave
 Tulsa—Crimson-Blue-Gold; Golden Hurricane
 Tuskegee—Gold-Crimson; Golden Tigers
 U.C.L.A.—Blue-Gold; Bruins
 Union (N. Y.)—Garnet; Dutchmen
 Utah—Crimson-White; Utes
 Utah State—Blue-White; Aggies
 Vanderbilt—Gold-Black; Commodores
 Vermont—Green-Gold; Catamounts
 Villanova—Blue-White; Wildcats
 Virginia—Blue-Orange; Cavaliers
 V.M.I.—Red-White-Yellow; Keydets
 V.P.I.—Orange-Maroon; Gobblers
 Wake Forest—Gold-Black; Demon Deacons
 Washington & Lee—Blue-White; Generals
 Washington (Mo.)—Myrtle-Maroon; Bears
 Washington (Wash.)—Purple-Gold; Huskies
 Washington State—Crimson-Gray; Cougars
 Wayne State—Green-Gold; Tartars
 Wesleyan—Cardinal-Black; Cardinals
 Western Reserve—Red-White; Red Cats
 W. Michigan—Brown-Gold; Broncos
 W. Virginia—Gold-Blue; Mountaineers
 Wichita—Black-Gold; Wheatshockers
 William & Mary—Green-Gold-Silver; Indians
 Williams—Royal Purple; Ephems
 Wisconsin—Cardinal; Badgers
 Wyoming—Brown-Gold; Cowboys
 Yale—Blue; Bulldogs, Elis

ICE HOCKEY

National League

REGULAR SEASON

Final Standing of the Clubs

	W	L	T	Goals For	Agst.	Pts.
Montreal Canadiens.....	43	17	10	250	158	96
New York Rangers.....	32	25	13	195	188	77
Detroit Red Wings.....	29	29	12	176	207	70
Boston Bruins.....	27	28	15	199	194	69
Chicago Black Hawks.....	24	39	7	163	202	55
Toronto Maple Leafs.....	21	38	11	192	226	53

Leading Scorers

	GP	G	A	Pts.	PIM
Dickie Moore, Montreal.....	70	38	48	84	65
Henri Richard, Montreal.....	67	28	52	80	56
Andy Bathgate, New York.....	65	30	48	78	42
Gordon Howe, Detroit.....	64	33	44	77	40
Bronco Horvath, Boston.....	67	30	35	65	71
Ed Litzenberger, Chicago.....	70	32	30	62	63
Fleming Mackell, Boston.....	70	20	40	60	72
Jean Beliveau, Montreal.....	55	27	32	59	93
Alex Delvecchio, Detroit.....	70	21	32	51	22
Doug McKenney, Boston.....	70	28	30	58	22
Camille Henry, New York.....	70	32	24	56	2
Vic Stasiuk, Boston.....	70	21	35	56	55
John Bucyk, Boston.....	69	21	31	52	57
Dave Creighton, New York.....	70	17	35	52	40
Claude Provost, Montreal.....	70	19	32	51	71
Norm Ullman, Detroit.....	69	23	28	51	38
Bernie Geoffrion, Montreal.....	42	27	23	50	51
Dick Duff, Toronto.....	65	26	23	49	79
Jerry Toppazzini, Boston.....	64	25	24	49	51
Bobby Hull, Chicago.....	70	13	34	47	62
Bill Gadsby, New York.....	65	14	32	46	48
George Sullivan, New York.....	70	11	35	46	61
Phil Goyette, Montreal.....	70	9	37	46	8
Andy Hebenton, New York.....	70	21	24	46	17
Billy Harris, Toronto.....	68	16	28	44	32
Brian Cullen, Toronto.....	67	20	23	43	29
George Armstrong, Toronto.....	69	17	26	42	93
Don Marshall, Montreal.....	68	22	19	41	14
Barry Cullen, Toronto.....	70	16	25	41	37
Doug Harvey, Montreal.....	68	9	24	41	131
Ron Stewart, Toronto.....	70	15	24	39	61
Marcel Bonin, Montreal.....	65	15	24	39	37
Ted Lindsay, Chicago.....	68	15	24	39	107
John Wilson, Detroit.....	70	12	27	39	14
Larry Regan, Boston.....	70	11	28	39	22
Eric Nesterenko, Toronto.....	70	20	18	35	104
Ted Sloan, Toronto.....	59	13	25	38	58
Bert Olmstead, Montreal.....	57	9	28	37	71
Frank Mahovlich, Toronto.....	67	20	16	36	67
Glenn Skov, Chicago.....	70	17	18	35	30
Maurice Richard, Montreal.....	28	15	19	34	28
Larry Popen, New York.....	70	12	22	34	22

Official All-N. H. L. Selections

First Team	Pos.	Second Team
Glenn Hall, Chi.....	G.....	Jacques Plante, Mont.
Doug Harvey, Mont.....	D.....	Fernie Flaman, Bos.
Bill Gadsby, N. Y.....	D.....	Marcel Pronovost, Det.
Henri Richard, Mont.....	C.....	Jean Beliveau, Mont.
Gordon Howe, Det.....	RW.....	Andy Bathgate, N. Y.
Dickie Moore, Mont.....	LW.....	Camille Henry, N. Y.

Trophy Winners

Hart (most valuable player)—Gordon Howe, Detroit
 Ross (leading scorer)—Dickie Moore, Montreal
 Lady Byng (sportsmanship)—Camille Henry, New York
 Calder (leading rookie)—Frank Mahovlich, Toronto
 Vezina (leading goalie)—Jacques Plante, Montreal
 Norris (best defenseman)—Doug Harvey, Montreal

MODERN PENTATHLON

World Championships

(At Aldershot, England)

	Pts.
Individual—Igor Novikov, U.S.S.R.....	4,924
Team—U.S.S.R.....	14,146

STANLEY CUP PLAYOFFS

Preliminary Series

Montreal defeated Detroit, 4 games to 0.

*March 25—Montreal 8, Detroit 1
 *March 27—Montreal 5, Detroit 1
 March 30—Montreal 2, Detroit 1 (11:52 overtime)
 April 1—Montreal 4, Detroit 3
 * At Montreal.

Boston defeated New York, 4 games to 2.

*March 25—New York 5, Boston 3
 *March 27—Boston 4, New York 3 (4:46 overtime)
 March 29—Boston 5, New York 0
 April 1—New York 5, Boston 2
 April 3—Boston 6, New York 1
 April 5—Boston 8, New York 2
 * At New York.

Championship Series

Montreal won the Stanley Cup, defeating Boston, 4 games to 2.

*April 8—Montreal 2, Boston 1
 *April 10—Boston 5, Montreal 2
 April 13—Montreal 3, Boston 0
 April 15—Boston 3, Montreal 1
 *April 17—Montreal 3, Boston 2 (5:45 overtime)
 April 20—Montreal 5, Boston 3
 * At Montreal.

Leading Scorers

	GP	G	A	Pts.	PIM
Fleming Mackell, Boston.....	12	5	14	19	10
Doug McKenney, Boston.....	12	9	8	17	2
Maurice Richard, Montreal.....	10	11	4	16	10
Doug Mohns, Boston.....	12	3	10	13	23
Jerry Toppazzini, Boston.....	12	9	3	12	2
Jean Beliveau, Montreal.....	10	4	8	12	10
Bernie Geoffrion, Montreal.....	10	6	5	11	3
Dickie Moore, Montreal.....	10	4	7	11	4
Larry Regan, Boston.....	12	4	7	11	6
Doug Harvey, Montreal.....	10	2	9	11	14
Andy Bathgate, New York.....	6	6	3	8	6
Bronco Horvath, Boston.....	12	5	3	8	5
Henri Richard, Montreal.....	10	1	7	8	11
Dave Creighton, New York.....	6	3	3	6	2
Phil Goyette, Montreal.....	10	4	1	5	4
Andy Hebenton, New York.....	6	2	3	5	4
Vic Stasiuk, Boston.....	12	0	5	5	13
Norman Johnson, Boston.....	12	4	0	4	8
Fernie Flaman, Boston.....	12	2	2	4	10
Claude Provost, Montreal.....	10	1	3	4	8
Allan Stanley, Boston.....	10	1	3	4	8
John Bucyk, Boston.....	12	0	4	4	16

BARREL JUMPING

LeBel Retains World Title

Leo LeBel of Hartford, Conn., won the world barrel jumping on ice skates championship for the fourth straight year in 1958. Competing at the Grossinger (N. Y.) Country Club, LeBel cleared 16 barrels for a distance of 25 feet 10½ inches. Terry Browne of Detroit, who held the title from 1951 through 1954, was second, hurdling 16 barrels for a leap of 25 feet 7 inches. George Coallier of Montreal placed third. He cleared 15 barrels and 24 feet 7¼ inches.

Minor League Hockey

AMERICAN LEAGUE

Final Standing of the Clubs

	Goals					Pts.
	W	L	T	For	Agst.	
*Hershey.....	39	24	7	241	198	85
Cleveland.....	39	28	3	232	163	81
Providence.....	33	32	5	237	220	71
Springfield.....	29	33	8	231	246	66
Rochester.....	29	35	6	205	242	64
Buffalo.....	25	42	3	224	301	53

* Won playoffs.

Leading Scorers

	GP	G	A	Pts.	PIM
Willie Marshall, Hershey.....	68	40	64	104	56
Duncan Fisher, Hershey.....	70	41	47	88	56
Jimmy Moore, Cleveland.....	70	25	58	83	44
Cal Gardner, Springfield.....	69	24	67	81	49
Gerry Ehman, Springfield.....	68	40	39	79	32
Larry Wilson, Buffalo.....	70	26	53	79	48
Bill Sweeney, Providence.....	70	31	46	77	24
Bruce Carmichael, Providence	70	22	55	77	26
Fred Glover, Cleveland.....	68	28	48	76	147
Floyd Smith, Springfield.....	70	26	50	75	60
Obie O'Brien, Hershey.....	65	23	48	71	48
Paul Larivee, Providence.....	66	33	38	71	35
Zellio Toppazzini, Providence	70	27	42	69	14
Bo Elk, Cleveland.....	70	31	37	68	129

QUEBEC LEAGUE

Final Standing of the Clubs

	Goals					Pts.
	W	L	T	For	Agst.	
Chicoutimi.....	35	24	5	241	209	75
*Shawinigan Falls.....	31	28	5	243	235	67
Montreal.....	39	30	5	227	219	63
Quebec.....	29	31	4	224	233	62
Three Rivers.....	24	35	5	176	215	53

* Won playoffs.

Leading Scorers

	GP	G	A	Pts.	PIM
Jean Paul Denis, Shawinigan	64	39	50	89	68
Grieg Hicks, Chicoutimi.....	64	19	58	77	38
Gene Meklik, Shawinigan.....	62	24	52	76	21
Allan Teal, Quebec.....	60	16	56	72	19
Guy Rousseau, Chicoutimi.....	63	29	41	70	30
Ken Mosdell, Montreal.....	62	27	42	69	51
Kelly Burnett, Montreal.....	55	32	36	68	14
Lou Smrke, Chicoutimi.....	60	24	44	68	39
Jacques Gagnon, Quebec.....	58	33	33	66	77
Gary Blaine, Quebec.....	62	23	38	61	28
Dick Bouchard, Shawinigan.....	63	23	38	61	60
Bob Sabourin, Quebec.....	48	20	40	60	32
Jack Leclair, Chicoutimi.....	64	40	16	56	64
Jacques Locas, Chicoutimi.....	57	26	30	56	6
Dick Wray, Shawinigan.....	57	26	30	56	6

WESTERN LEAGUE

Final Standing of the Clubs

COAST DIVISION

	Goals					Pts.
	W	L	T	For	Agst.	
*Vancouver.....	44	21	5	238	174	93
New Westminster.....	39	28	3	254	224	81
Seattle.....	32	32	6	244	231	70
Victoria.....	18	50	2	226	313	38

PRAIRIE DIVISION

Winnipeg.....	39	26	5	262	211	83
Edmonton.....	38	28	4	264	225	80
Calgary.....	30	35	5	222	223	65
Saskatoon-St. Paul.....	25	45	0	214	323	50

* Defeated Winnipeg for league championship.

Leading Scorers

	GP	G	A	Pts.	PIM
Guyle Fielder, Seattle.....	62	26	85	111	22
Phil Maloney, Vancouver.....	70	35	69	94	0
Sid Finney, Calgary.....	58	45	43	88	8
Len Lunde, Edmonton.....	67	39	43	82	17
Colin Kilburn, Vic.-Edm.....	70	28	64	82	108
Earl Ingarfield, Winnipeg.....	64	39	41	80	25
Art Stratton, Winnipeg.....	70	23	63	76	12
Eddie Dorohoy, Victoria.....	58	34	41	75	61
Val Fonteyne, Seattle.....	70	34	41	75	11
Bill Mosienko, Winnipeg.....	65	38	36	74	43
Max McNab, New W'minster.....	67	24	50	74	14
Steve Witiuk, Winnipeg.....	65	27	46	73	43
Howard Glover, Winnipeg.....	67	38	34	72	72
Jackie McLeod, Vancouver.....	68	44	27	71	45
Pete Kapusta, Winnipeg.....	70	29	42	71	26

Amateur Hockey

EASTERN LEAGUE

Final Standing of the Clubs

	Goals					Pts.
	W	L	T	For	Agst.	
Charlotte.....	38	25	1	275	242	77
*Washington.....	36	24	4	219	194	76
New Haven.....	33	26	5	204	181	71
Johnstown.....	31	30	3	228	225	65
Philadelphia.....	30	31	3	210	211	63
Clinton.....	15	47	2	184	264	32

* Won playoffs.

WORLD CHAMPIONSHIP

(At Oslo, Norway)

	Goals					Pts.
	W	L	T	For	Agst.	
Canada.....	7	0	0	82	6	14
Russia.....	5	1	1	44	15	11
Sweden.....	5	2	0	46	21	10
Czechoslovakia.....	3	2	2	21	21	8
United States.....	3	3	1	23	33	7
Finland.....	1	5	1	9	51	3
Norway.....	1	6	0	12	44	2
Poland.....	0	6	1	14	65	1

Other Champions

United States

National amateur (senior)—Rochester, Minn.
 National amateur (junior)—Minneapolis, Minn.
 National pee wee—Glen Avon, Duluth, Minn.
 National Collegiate—Denver

Canada

Allan Cup (national senior amateur)—Belleville (Ont)
 McFarlands
 Memorial Cup (national junior amateur)—Ottawa-Hull (Ont)
 Canadiens

INTERNATIONAL LEAGUE

Final Standing of the Clubs

	Goals					Pts.
	W	L	T	For	Agst.	
Cincinnati.....	43	16	5	303	176	91
Fort Wayne.....	28	28	8	213	224	64
Louisville.....	30	31	3	239	263	63
*Indianapolis.....	28	30	6	209	208	62
Toledo.....	26	32	6	214	248	58
Troy.....	20	38	6	192	251	46

* Won playoffs.

SPEED SKATING

World Championships—Men

(At Helsinki, Finland)

All-around—Oleg Goncharenko, Russia.....	193.905 pts.
500 meters—Robert Merkulov, Russia.....	44.2
1,500 meters—Oleg Goncharenko, Russia.....	2:17.7
5,000 meters—Vladimir Shilikovski, Russia.....	8:31.5
10,000 meters—Knut Johnnesen, Norway.....	17:08.3

North American Outdoor

(At West Allis, Wis.)

Champion—Andy Korenak, West Allis, Wis.....	20 pts.
220 yds.—Andy Korenak, West Allis, Wis.....	19.1
440 yds.—Don Prather, Champaign, Ill.....	36.3
880 yds.—Andy Korenak, West Allis, Wis.....	1:15.4
¾-mi.—Phil Elliott, Chicago.....	2:21.5
1 mile—Robert Snyder, Detroit.....	3:36.9
2 mi.—Andy Korenak, West Allis, Wis.....	5:54.9
5 mi.—Keith Meyer, Glen Ellyn, Ill.....	15:50.6
Intermediate—Tom Weisel, Whitefish Bay, Wis.....	28 pts.
Junior—Paul Nelson, Minneapolis.....	20 pts.
Juvenile—James Edmonds, Chicago.....	10 pts.

WOMEN

Champion—Jeanne Omelenchuk, Detroit.....	23 pts.
220 yds.—Mary Novak, Chicago.....	21.7
440 yds.—Jeanne Omelenchuk, Detroit.....	40.6
880 yds.—Jeanne Omelenchuk, Detroit.....	1:28.8
¾-mi.—Jeanne Omelenchuk, Detroit.....	2:15.4
1 mile—Jeanne Omelenchuk, Detroit.....	3:08.8
Intermediate—Sharyl Yarwood, Minneapolis.....	12 pts.
Junior—Colleen Meyers, Minneapolis.....	12 pts.
Juvenile—Sandra Danielson, Minneapolis.....	13 pts.

North American Indoor

(At Rochester, N. Y.)

Champion—Jim Campbell, Glen Ellyn, Ill.....	16 pts.
440 yds.—Jim Campbell, Glen Ellyn, Ill.....	40.9
880 yds.—Jack Disney, Pasadena, Calif.....	1:23.4
¾-mi.—Keith Meyer, Glen Ellyn, Ill.....	2:08.3
1 mile—Jack Disney, Pasadena, Calif.....	2:54.0
2 mi.—Keith Meyer, Glen Ellyn, Ill.....	6:18.0
Intermediate—Art Larkin, Brooklyn, N. Y.....	14 pts.
Junior—Bob Fenn, New York.....	10 pts.
Juvenile—Jackie Walters, Boston.....	13 pts.

WOMEN

Champion—Jean Ashworth, Wilmington, Mass.....	17 pts.
440 yds.—Jean Ashworth, Wilmington, Mass.....	42.8
880 yds.—Jean Ashworth, Wilmington, Mass.....	1:35.3
¾-mi.—Jean Ashworth, Wilmington, Mass., and Jeanne Omelenchuk, Detroit (tie).....	2:32.6
1 mile—Jeanne Omelenchuk, Detroit.....	3:29.9
Intermediate—Barbara Lockhart, Chicago.....	15 pts.
Junior—Loretta Chapman, Detroit.....	10 pts.
Juvenile—Sandra Danielson, Minneapolis.....	13 pts.

World Championships—Women

(At Kristinehamn, Sweden)

All-around—Inga Artamonova, Russia.....	208.483 pts.
500 meters—Tamara Rylova, Russia.....	47.6
1,000 meters—Sofia Kondakova, Russia.....	1:43.3
1,500 meters—Inga Artamonova, Russia.....	2:34.3
3,000 meters—Inga Artamonova, Russia.....	5:33.0

United States Outdoor

(At St. Paul, Minn.)

Champion—Gene Sandvig, Minneapolis.....	22 pts.
220 yds.—William Carow, West Allis, Wis.....	19.3
440 yds.—Gene Sandvig, Minneapolis.....	36.4
880 yds.—Tom Augustitus, Detroit.....	1:28.0
¾-mi.—William Cushman, St. Paul, Minn.....	2:27.1
1 mile—Gene Sandvig, Minneapolis.....	3:27.4
2 mi.—Gene Sandvig, Minneapolis.....	6:49.6
5 mi.—Robert Snyder, Detroit.....	16:59.9
Intermediate—Tom Weisel, Whitefish Bay, Wis.....	20 pts.
Junior—Paul Nelson, Minneapolis.....	23 pts.
Juvenile—Tom Gray, Minneapolis.....	8 pts.

WOMEN

Champion—Jeanne Omelenchuk, Detroit.....	22 pts.
220 yds.—Mary Novak, Chicago.....	22.6
440 yds.—Jeanne Omelenchuk, Detroit.....	41.1
880 yds.—Jeanne Omelenchuk, Detroit.....	1:30.8
¾-mi.—Jeanne Omelenchuk, Detroit.....	2:19.6
1 mile—Jeanne Omelenchuk, Detroit.....	3:16.6
Intermediate—Barbara Lockhart, Chicago.....	16 pts.
Junior—Sandra Ecklund, Minneapolis.....	10 pts.
Juvenile—Sandra Danielson, Minneapolis.....	15 pts.

United States Indoor

(At Champaign, Ill.)

Champion—Jack Disney, Pasadena, Calif.....	14 pts.
440 yds.—Don Prather, Urbana, Ill.....	37.8
880 yds.—Bob Olson, Los Angeles.....	1:18.6
¾-mile—Jack Disney, Pasadena, Calif.....	2:03.2
1 mile—Keith Meyer, Glen Ellyn, Ill.....	2:55.7
2 miles—Jack Disney, Pasadena, Calif.....	6:19.2
Intermediate—Terry McDermott, Essexville, Mich.....	10 pts.
Junior—Don Hill, Chicago.....	11 pts.
Juvenile—James Edmonds, Chicago.....	11 pts.

WOMEN

Champion—Mary Novak, Chicago.....	15 pts.
440 yds.—Mary Novak, Chicago.....	42.5
880 yds.—Mary Novak, Chicago.....	1:30.2
¾-mi.—Carol Johnson, Minneapolis.....	2:17.2
1 mile—Jeanne Omelenchuk, Detroit.....	3:10.2
Intermediate—Barbara Lockhart, Chicago.....	15 pts.
Junior—Sandra Ecklund, Minneapolis.....	11 pts.
Juvenile—Barbara Mueller, West Allis, Wis.....	15 pts.

FIGURE SKATING

World Championships

(At Paris)

Men—David Jenkins, Colorado Springs, Colo.
 Women—Carol Heiss, Ozone Park, N. Y.
 Pairs—Barbara Wagner-Robert Paul, Canada
 Dance—June Markham-Courtney Jones, Great Britain

Canadian Championships

(At Ottawa)

Men—Charles Snelling, Toronto
 Women—Margaret Crosland, Winnipeg
 Pairs—Barbara Wagner-Robert Paul, Toronto
 Dance—Geraldine Fenton-William McLachlan, Toronto

United States Championships

(At Minneapolis)

Men—David Jenkins, Colorado Springs, Colo.
 Women—Carol Heiss, Ozone Park, N. Y.
 Pairs—Mr. and Mrs. Ronald Ludington, Boston
 Silver dance—Judy Ann Lamar-Ronald Ludington, Boston
 Gold dance—Andree Anderson-Donald Jacoby, Buffalo, N. Y.
 Junior—James Short, Alhambra, Calif.
 Women's junior—Barbara Ann Roles, Arcadia, Calif.
 Junior pairs—Gayle and Karl Freed, Cincinnati
 Novice—Harvey Balch, Arcadia, Calif.
 Women's novice—Rhode Lee Michelson, Long Beach, Calif.
 Team—Boston (59½ pts.)

TRACK AND FIELD

National A. A. U. Championships

Men's Indoor

(At New York City)

60 yds.—Ed Collymore, Villanova.....	6.2
60-yd. high hurdles—Hayes Jones, Eastern Michigan.....	7.1
600 yds.—Charles Jenkins, Philadelphia.....	1:11.3
1,000 yds.—Zbigniew Orywal, Poland.....	2:14.1
1 mile—Ron Delany, Villanova.....	4:03.7
1 mile walk—John Humcke, New York A. C.....	6:55.5
3 miles—Velisa Mugosa, Yugoslavia.....	13:54.2
1,060-yd. sprint medley relay—New York A. C. (Steve Bartold, Jim Warner, Paul Ewing, Grant Scruggs).....	1:55.3
1 mile relay—Manhattan Freshmen (Tom Greene, Frank Carroll, Art Evans, Kye Courtney).....	3:19.6
2-mile relay—Georgetown (Bob Vinton, John Nelson, Norm Williams, Bob Carney).....	7:44.6
High jump—Herman Wyatt, Santa Clara (Calif.) Y. C.....	6 ft. 7½ in.
Broad jump—Greg Bell, Indiana.....	25 ft. 5¼ in.
Pole vault—Don Bragg, Shanahan C. C., Philadelphia, and Bob Gutowski, Occidental (tie).....	15 ft.
Shot put—Parry O'Brien, Palm Springs, Calif.....	60 ft. 1¼ in.
35-lb. weight throw—Bob Backus, New York A. C.....	65 ft. 4¼ in.
Team—New York A. C.....	21 pts.

Women's Indoor

(At Akron, Ohio)

50 yds.—Isabel Daniels, Tennessee State.....	5.8
50-yd. low hurdles—Shirley Crowder, Tennessee State.....	7.0
100 yds.—Barbara Jones, Tennessee State.....	11.9
220 yds.—Isabel Daniels, Tennessee State.....	26.2
440-yd. relay—Tennessee State (Margaret Mathews, Ann Smith, Martha Hudson, Barbara Jones).....	51.3
440-yd. medley relay—Tennessee State (Barbara Jones, Margaret Mathews, Lucinda Williams, Isabel Daniels).....	52.5
High jump—Barbara Brown, Police A. L., New York, and Ann Marie Flynn, German-American A. C., New York (tie).....	5 ft. 2½ in.
Standing broad jump—Shirley Hereford, Cleveland.....	9 ft. ½ in.
Shot put—Earlene Brown, Southern Pacific A. A. U.....	49 ft. 6 in.
Basketball throw—Earlene Brown, Southern Pacific A. A. U.....	135 ft. 2 in.
Team—Tennessee State.....	47 pts.

Women's Outdoor

(At Morristown, N. J.)

50 yds.—Barbara Jones, Tennessee State.....	6.0
100 yds.—Margaret Mathews, Tennessee State.....	11.1
220 yds.—Lucinda Williams, Tennessee State.....	24.3
440 yds.—Christine McKenzie, Police A. L., New York.....	1:01.6
880 yds.—Florence McArdle, Queens Mercuertes, New York.....	2:26.7
80-meter hurdles—Bertha Diaz, Cuba.....	11.4
440-yd. relay—Tennessee State (Isabel Daniels, Lucinda Williams, Barbara Jones, Margaret Mathews).....	46.9
High jump—Barbara Brown, Police A. L., New York, and Rose Robinson, Chicago (tie).....	5 ft. 2½ in.
Broad jump—Margaret Mathews, Tennessee State.....	20 ft. 1 in.
Shot put—Earlene Brown, Southern Pacific A. A. U.....	47 ft. 5½ in.
Discus—Earlene Brown, Southern Pacific A. A. U.....	152 ft. 5½ in.
Javelin—Marjorie Larney, Queens Mercuertes, New York.....	153 ft. 7½ in.
Team—Tennessee State.....	110 pts.

Men's Outdoor

(At Bakersfield, Calif.)

100 yds.—Bobby Morrow, Abilene Christian.....	9.4
220 yds.—Bobby Morrow, Abilene Christian.....	20.9
440 yds.—Eddie Southern, Texas.....	45.8
880 yds.—Tom Courtney, New York A. C.....	1:49.2
1 mile—Herb Elliott, Australia.....	3:57.5
3 miles—Alex Henderson, Arizona State.....	13:37.7
6 miles—John Macy, Houston, Tex.....	29:25.6
3,000-meter steeplechase—Charlie Jones, Iowa.....	8:57.3
2-mile walk—John Humcke, New York A. C.....	15:07.5
120-yd. high hurdles—Hayes Jones, E. Michigan.....	13.8
220-yd. low hurdles—Fran Washington, Winston-Salem.....	23.1
440-yd. hurdles—Glenn Davis, Ohio State.....	49.9
High jump—Charlie Dumas, So. California Striders.....	6 ft. 9¼ in.
Broad jump—Ernie Shelby, Kansas.....	25 ft. 10¼ in.
Hop, step and jump—Ira Davis, La Salle.....	50 ft. 8¼ in.
Pole vault—Ron Morris, So. California Striders.....	14 ft. 9 in.
Shot put—Parry O'Brien, So. California Striders.....	61 ft. 11¼ in.
Discus—Rink Babka, So. California Striders.....	187 ft. 10 in.
Javelin—Bud Held, San Diego, Calif.....	252 ft. ½ in.
Hammer—Harold Connolly, Boston A. A.....	225 ft. 4 in.
56-lb. weight—Bob Backus, New York A. C.....	43 ft. 2 in.
Team—Southern California Striders.....	101 pts.

Other Outdoor

Decathlon—Rafer Johnson, U. C. L. A.....	7,754 pts.
Pentathlon—Howard Smith, So. California Striders.....	3,200 pts.
Women's pentathlon—Ann Roninger, Elmdale, Kan.....	3,762 pts.
All-around—Tom Pagani, New York A. C.....	8,114½ pts.
15,000 meters—Peter McArdle, New York A. C.....	46:04.9*
20,000 meters—John J. Kelley, Boston A. A.....	1:04:05.0
25,000 meters—John J. Kelley, Boston A. A.....	1:31:30.0
Marathon—John J. Kelley, Boston A. A.....	2:21:00.4

* Course short.

RELAYS

(At Buffalo, N. Y.)

440-yd.—N. Y. Pioneer Club (Jim Phipps, John Fernandez, Dick Williams, Jim Gathers).....	42.4
1 mile—East York T. C., Toronto (Al Smith, Stan Worsford, Ken Vogelsang, Ergas Leps).....	3:21.1
1½-mile medley—New York A. C. (Tom Murphy, Bill Kehoe, Ed Moran, Velisa Mugosa).....	7:28.7

WALKING

10,000 meters—Bruce MacDonald, N. Y. Pioneer Club.....	50:37.0
15,000 meters—John Humcke, New York A. C.....	1:19:09.0
20,000 meters—Ron Laird, N. Y. Pioneer Club.....	1:40:09.0
25,000 meters—Ron Laird, N. Y. Pioneer Club.....	2:16:05.0
30,000 meters—Guillermo Weller, Argentina.....	2:49:12.5
35,000 meters—Leo Sjogren, Finnish-American Society A. C., Los Angeles.....	3:25:35.0
40,000 meters—James Hewson, St. Francis Xavier A. C., Buffalo, N. Y.....	3:49:35.0
50,000 meters—James Hewson, St. Francis Xavier A. C., Buffalo, N. Y.....	4:43:40.0

U. S. Track Laurels to Brooklyn School

St. Francis Prep of Brooklyn, N. Y. captured the National A. A. U. high and prep school indoor track and field championship in 1958. West Catholic High of Philadelphia was second.

NATIONAL COLLEGIATE

(At Berkeley, Calif.)

100 yds.—Ira Murchison, Western Michigan.....	9.5
220 yds.—Ed Collymore, Villanova.....	20.7
440 yds.—Glenn Davis, Ohio State.....	45.7
880 yds.—Ron Delany, Villanova.....	1:48.6
1 mile—Ron Delany, Villanova.....	4:03.5
2 miles—Alex Henderson, Arizona State (Tempe).....	8:46.3
120-yd. high hurdles—Elias Gilbert, Winston-Salem.....	13.9
220-yd. low hurdles—Charlie Tidwell, Kansas.....	22.7
High jump—Don Stewart, Southern Methodist.....	6 ft. 9 3/4 in.
Broad jump—Ernie Shelby, Kansas.....	25 ft. 3 3/4 in.
Pole vault—Jim Johnston, Purdue; Bob Davis, Missouri; Stan Lyons, Ohio State, and Gene Freudenthal, Southern California (tie).....	14 ft. 4 in.
Shot put—Dave Davis, Southern California.....	58 ft. 6 1/2 in.
Discus—Al Oerter, Kansas, and Rink Babka, Southern California (tie).....	186 ft. 2 in.
Team—Southern California.....	48 6/7 pts.

INDOOR MILE WINNERS

Massachusetts K. of C.—Ron Delany, Villanova.....	4:05.0
Philadelphia Inquirer—Ron Delany, Villanova.....	4:08.1
Washington Star—George King, New York A. C.....	4:13.6
Metropolitan College—Peter Close, St. John's.....	4:16.6
Boston A. A. (Hunter)—Ron Delany, Villanova.....	4:05.3
Millrose A. A. (Wanamaker)—Ron Delany, Villanova.....	4:04.6
New York A. C. (Baxter)—Ron Delany, Villanova.....	4:10.0
National Interscholastic—Tom Laris, George Washington H. S., New York.....	4:16.9
National A. A. U.—Ron Delany, Villanova.....	4:03.7
Big Eight—Tom Skutka, Kansas.....	4:11.0
Atlantic Coast—Burr Grim, Maryland.....	4:12.5
I. C. 4-A—Peter Close, St. John's.....	4:10.3
I. C. 4-A Special—Istvan Rozsavolgyi, Hungary.....	4:08.7
Big Ten—Charles Jones, Iowa.....	4:10.5
Heptagonal—Mike Midler, Cornell.....	4:17.7
New York K. of C. (Columbian)—Ron Delany, Villanova.....	4:08.4
Chicago Relays (Bankers)—Ron Delany, Villanova.....	4:03.4
Cleveland K. of C.—Ron Delany, Villanova.....	4:12.7

BOSTON MARATHON

(26 miles, 385 yards)

1—Franjo Mihalic, Yugoslavia.....	2:25:54
2—John J. Kelley, Boston A. A.....	2:30:51
3—Eino Pulkkinen, Finland.....	2:37:05
4—Tony Sapienza, Boston A. A.....	2:39:46
5—Pedro Peralta, Mexico.....	2:42:35
6—Shalem Kahalani, Israel.....	2:48:00
7—Thomas C. Ryan, Redondo Beach, Calif.....	2:50:13
8—Gonzales Scotto, Boston A. A.....	2:51:07
9—John A. Kelley, Watertown, Mass.....	2:52:12
10—Laurence H. Fauber, Boston.....	2:53:17
11—James F. Green, Boston A. A.....	2:55:32
12—Ted Suito, Homer City, Pa.....	2:57:52
13—Nat Cirulnick, N. Y. Pioneer Club.....	2:58:26
14—Jack Hughes, Boulder, Colo.....	2:59:12
15—James Borden, N. Y. Pioneer Club.....	3:00:11

World Indoor Mile Mark to Delany

Ron Delany of Dublin, Ireland, and Villanova University lowered the world indoor mile record in 1958 to 4:03.4. His performance in the Bankers Mile at the Chicago Relays erased the old record of 4:03.6 set by Gunnar Nielsen of Denmark in the Wanamaker Mile at the Millrose Games in New York in 1955.

INTERCOLLEGIATE A. A. A. A. (IC4A)

Outdoor

(At Villanova, Pa.)

100 yds.—Ira Davis, LaSalle.....	9.6
220 yds.—Ed Collymore, Villanova.....	20.3
440 yds.—James Norton, Penn State.....	48.1
880 yds.—Ron Delany, Villanova.....	1:50.0
1 mile—Ron Delany, Villanova.....	4:07.8
2 miles—Crawford Kennedy, Michigan State.....	9:15.5
120-yd. high hurdles—Joel Landau, Harvard.....	14.2
220-yd. low hurdles—Joel Landau, Harvard.....	22.9
Mile relay—Michigan State (Brian Castle, Bob Hughes, Dave Lean, Willie Atterbury).....	3:10.8
High jump—Phil Reavis, Villanova.....	6 ft. 10 in.
Broad jump—John Buckley, Villanova.....	25 ft. 3/4 in.
Pole vault—John Gray, Pennsylvania.....	14 ft. 4 in.
Shot put—Carl Shine, Pennsylvania.....	56 ft. 10 1/4 in.
Discus—Wesley King, Pittsburgh.....	160 ft. 4 in.
Javelin—Don McGorty, Manhattan.....	229 ft. 2 1/2 in.
Hammer—John Lawlor, Boston U.....	198 ft. 8 in.
Team—Villanova.....	33 5/6 pts.

Indoor

(At New York)

60 yds.—Ed Collymore, Villanova.....	6.2
600 yds.—Tom Murphy, Manhattan.....	1:11.0
1,000 yds.—Ron Delany, Villanova.....	2:12.8
1 mile—Peter Close, St. John's.....	4:10.3
2 miles—Ron Delany, Villanova.....	9:17.6
60-yd. high hurdles—Al Hoddinott, Georgetown.....	7.3
Mile relay—Pittsburgh (Zinnepford Smith, Vincent Wojnar, Paul Thrash, Mel Barnwell).....	3:20.4
2-mile relay—Syracuse (Robert McSorley, Larry Twomey, Bryant Wood, Ben Johns).....	7:41.9
High jump—Phil Reavis, Villanova.....	6 ft. 8 3/4 in.
Broad jump—Mike Herman, New York University.....	24 ft. 7 1/2 in.
Pole vault—Ed Hoyle, Marquette.....	14 ft. 8 in.
Shot put—Joe Marchiony, Manhattan.....	54 ft. 11 1/4 in.
35-lb. weight—John Lawlor, Boston U.....	57 ft. 6 1/4 in.
Team—Villanova.....	29 3/4 pts.

HANDBALL

"World Series of Handball"

Combined A.A.U., U.S.H.A., Y.M.C.A. Championships—Four-Wall

(At Chicago)

Singles—John Sloan, Chicago Town Club
Doubles—John Sloan-Phil Collins, Chicago Town Club
Masters doubles (A. A. U. rules)—Frank Coyle-Joe Ardito, Irving Park Y.M.C.A., Chicago
Masters doubles (U. S. H. A. rules)—Sam Haber, San Jose, Calif.-Lou Lubin, Miami, Fla.

A. A. U. One-Wall Championships

(At Brooklyn, N. Y.)

Singles—Oscar Obert, New York A. C.
Doubles—Oscar and Ruby Obert, New York A. C.

A. A. U. Four-Wall Junior Championships

(At Louisville, Ky.)

Singles—Oscar Obert, New York A. C.
Doubles—Oscar Obert-Joe Pushkal, New York A. C.

National Intercollegiate Championships

(At Chicago)

Singles—Bob Perez, Roosevelt
Singles (Class B)—Dick Beeler, Texas
Doubles—Ed Koshner-Stan Goldstein, Washington (Mo.)
Team—R.P.I.

SKIING

World Championships

ALPINE

(At Bad Gastein, Austria)

Slalom—Josl Rieder, Austria.....	115.1 sec.
Downhill—Toni Sailer, Austria.....	2:28.5
Giant slalom—Toni Sailer, Austria.....	1:48.8
Combined—Toni Sailer, Austria.....	0.36 pts.
Team (unofficial)—Austria.....	125 pts.

WOMEN

Slalom—Inger Bjornbakken, Norway.....	105.6 sec.
Downhill—Lucile Wheeler, Canada.....	2:12.1
Giant slalom—Lucile Wheeler, Canada.....	1:54.6
Combined—Frieda Danzer, Switzerland.....	3.80 pts.
Team (unofficial)—Austria.....	77½ pts.

NORDIC

(At Lahti, Finland)

Jumping—Martti Maatela, Finland.....	224.5 pts.
Cross-country—Paavo Korhonen, Finland.....	51:32.7
Combined—Paavo Korhonen, Finland.....	448.5 pts.
15 kilo.—Veikko Hakulinen, Finland.....	48:58.3
30 kilo.—Kalevi Haemaelaen, Finland.....	1:40:03.0
50 kilo.—Sixten Jernberg, Sweden.....	2:56:21.9
40-kilo. relay—Sweden.....	2:18:15.0
Special jump—Johani Kaerkinen, Finland.....	224.5 pts.
Women's cross-country—Alevtina Kolchina, Russia.....	44:49.0
Women's 15-kilo. relay—Russia.....	58:32.4
Team (unofficial)—Finland.....	68 pts.

United States Championships

ALPINE

(At Ogden, Utah)

Slalom—Charles Ferries, Aspen, Colo.....	113.4 sec.
Downhill—William Smith, Hanover, N. H.....	89.0 sec.
Giant slalom—Stanley Harwood, Southern Rocky Mountain S. A.....	113.4 sec.
Combined—Frank Brown, Boulder, Colo.....	11.17 pts.

WOMEN

Slalom—Beverly Anderson, Mullan, Idaho.....	102.7 sec.
Downhill—Beverly Anderson, Mullan, Idaho.....	97.5 sec.
Giant slalom—Beverly Anderson, Mullan, Idaho.....	242.6 sec.
Combined—Beverly Anderson, Mullan, Idaho.....	.0 pts.

JUMPING

(At Iron Mountain, Mich.)

Senior—Billy Olson, Eau Claire, Mich.....	222.7 pts.
Junior—Gene Kotlarek, Duluth, Minn.....	222.1 pts.
Veterans—Lloyd Severud, Eau Claire, Mich.....	210.5 pts.

CROSS-COUNTRY

15 kilo.—Leo Massa, Matawan, N. J.....	1:16:50
30 kilo.—Leslie Fono, Denver.....	2:10:18

NORDIC COMBINED

(At Rumford, Me.)

Class A—Alfred Vincelette, Denver University.....	459.65 pts.
Class B—Frank Noel, Dartmouth Outing Club, Hanover, N. H.....	436.60 pts.

National Collegiate A. A.

(At Hanover, N. H.)

Slalom—Robert Gebhardt, Dartmouth.....	98.1 sec.
Downhill—Gary Vaughn, Norwich.....	108.5 sec.
Combined (Alpine)—Dave Vorse, Dartmouth.....	98.2 pts.
Cross-country—Clarence Servold, Denver.....	1:03:50
Jumping—Oddvar Ronnestad, Denver.....	214.7 pts.
Combined (Nordic)—Clarence Servold, Denver.....	93.5 pts.
Skeimeister—Dave Harwood, Dartmouth.....	
Team—Dartmouth.....	561.2 pts.

FENCING

Source: Amateur Fencers League of America.

World Championships

(At Philadelphia)

Individual

Team

Foil.....	Gian Carlo Bergamini, Italy	France
Epee.....	H. William Hoskyns, England	Italy
Saber.....	Iakov Rylskii, U.S.S.R.	Hungary
Women.....	Valentina Kisseleva, U.S.S.R.	U.S.S.R.
Overall (Prince Rainier Trophy).....		U.S.S.R.

United States Championships

(At New York)

Foil—Albert Axelrod, Boston Fencers Club
Epee—Richard Berry, Detroit
Saber—Daniel Magay, Pannonia A. C., San Francisco
Women—Mrs. Maxine Mitchell, Los Angeles A. C.

TEAM

Foil—Fencers Club, New York (Dr. Daniel Bukantz, Harold Goldsmith, Charles Steinhart, Aubrey Seeman)
Epee—Michigan Division (Richard Berry, George Calkins, James Campoli, Paul Martinez)
Saber—Salle Santelli, New York (George Worth, Allan Kwartler, Czabo Pallaghy, Robert Blum)
Three-weapon—New England Division (Albert Axelrod, Richard Pew, William Andre, Ed Richards)
Women—Salle Lucia, New York (Prudence Schwabe, Harriet King Constance Kwartler, Averil Genton)

National Collegiate

(At Lubbock, Texas)

Foil—Bruce Davis, Wayne State
Epee—R. R. Womack, Navy
Saber—Art Schankin, Illinois
Team—Illinois (Abbey Silverstone, Lee Sentman, Art Schankin)

Intercollegiate Association

(At New York)

Individual

Team

Foil.....	John Norton, Yale	N. Y. U.
Epee.....	Paul Levy, Princeton	Cornell
Saber.....	Mike Desaro, N. Y. U.	Columbia
Three-weapon.....		Columbia

Women's Intercollegiates

(At Jersey City, N. J.)

Individual—Dolores Comerio, Jersey City State Teachers
Team—Paterson (N. J.) State Teachers

BOBSLEDDING

World Championships

(At Garmisch-Partenkirchen, Germany)

Two-man—Eugenio Monti-Renzo Alvera, Italy.....	5:05.78
Four-man—Germany (Hans Roesch, Alfred Hammer, Walter Haller, Theo Bauer).....	4:49.33
Donna Fox Cup—United States (Dick Severino, John Camden, Robert Hagenes, Clarence Sutton).....	1:13.85

North American

(At Lake Placid, N. Y.)

Two-man—Tuffy Latour-Forest Morgan, Saranac Lake B. C.....	5:00.91
Four-man—U. S. Air Force (Capt. Hill Moore, Lt. Ted Labernik, Lt. Robert Cloninger, Capt. Robert Dietz).....	4:49.71

National A. A. U.

(At Lake Placid, N. Y.)

Two-man—Not held.	
Four-man—Adirondack B. C. (Art Tyler, Doug Tyler, Parker Vooris, Tom Butler).....	4:41.36

SWIMMING National A. A. U. Championships

Men's Indoor (At New Haven, Conn.)

100-yd. free—Lance Larson, Los Angeles.....	49.5
220-yd. free—Murray Rose, So. California Freshmen	2:02.5
440-yd. free—Murray Rose, So. California Freshmen	4:21.6
1,500-meter free—Murray Rose, So. California Freshmen.....	18:28.5
100-yd. back—Frank McKinney, Bloomington, Ind.....	56.6
220-yd. back—Frank McKinney, Bloomington, Ind.....	2:16.9
100-yd. breast—Manuel Sanguily, Columbus, Ohio..	1:04.2
220-yd. breast—Fred Munsch, N. Y. Porpoise Club...	2:38.5
100-yd. butterfly—Tony Tashnick, Ann Arbor, Mich.	54.3
220-yd. butterfly—Bill Yorzyk, Northampton, Mass.	2:18.0
400-yd. medley—George Harrison, Stanford, Calif...	4:41.3
440-yd. freestyle relay—So. California Freshmen (Thomas Winters, Donald Reddington, Murray Rose, Jon Henricks).....	3:20.4
400-yd. medley relay—New Haven (Conn.) S. C. (Jerry Dolbey, Joe Koletsky, Tom Jecko, Roger Anderson).....	3:46.6
1-meter dive—Gary Tobian, U. S. Army.....	155.27 pts.
3-meter dive—Don Harper, Coca-Cola S. C., Cincinnati.....	173.48 pts.
Team—U. of So. California Freshmen.....	55 pts.

Men's Outdoor (At Indianapolis)

100-m. free—Jon Henricks, Los Angeles A. C.....	55.8
200-m. free—Jon Henricks, Los Angeles A. C.....	2:05.2
400-m. free—Murray Rose, Los Angeles A. C.....	4:24.5
1,500-m. free—Murray Rose, Los Angeles A. C.....	18:06.4
100-m. back—Frank McKinney, Indianapolis A. C.....	1:04.5
200-m. back—Frank McKinney, Indianapolis A. C.....	2:20.8
100-m. breast—Manuel Sanguily, Columbus, Ohio...	1:15.9
200-m. breast—Norbert Rumpel, New York A. C.....	2:47.8
100-m. butterfly—Mike Troy, Indianapolis A. C.....	1:02.8
200-m. butterfly—Bill Yorzyk, Pine Knoll S. C., Springfield, Mass.....	2:22.5
400-m. medley—Frank Brunell, Indianapolis A. C.....	5:20.6
400-m. medley relay—Los Angeles A. C. (John Fellows, Larry Zechiel, Lance Larson, Jon Henricks)	4:24.6
800-m. freestyle relay—Los Angeles A. C. (Don Reddington, Peter Fellows, Jon Henricks, Murray Rose)	8:42.7
3-m. springboard dive—Gary Tobian, Los Angeles A. C.....	525.20 pts.
10-m. platform dive—Gary Tobian, Los Angeles A. C.....	468.55 pts.
Team—Indianapolis A. C.....	93 pts.

NATIONAL COLLEGIATE

(At Ann Arbor, Mich.)

50-yd. free—Gary Morris, Iowa.....	22.4
100-yd. free—Donald Patterson, Michigan State....	49.5
220-yd. free—Roger Anderson, Yale.....	2:03.7
440-yd. free—William Steuart, Michigan State.....	4:34.3
1,500-meter free—William Steuart, Michigan State..	18:45.8
100-yd. back—James Dolbey, Yale.....	57.8
200-yd. back—Dave Pemberton, Northwestern.....	2:08.0
100-yd. breast—Franklin Modine, Michigan State...	1:05.2
200-yd. breast—Franklin Modine, Michigan State...	2:25.4
100-yd. butterfly—Tony Tashnick, Michigan.....	54.6
200-yd. butterfly—Tony Tashnick, Michigan.....	2:04.2
200-yd. medley—Joe Hunsaker, Illinois.....	2:09.6
400-yd. freestyle relay—Ohio State (Bob Connell, Charles Bechtel, Dick Dewey, Joe Van Horn)....	3:23.1
400-yd. medley relay—Yale (James Dolbey, Joe Koletsky, Tim Jecko, Charles Bronston).....	3:48.6
1-meter dive—Don Harper, Ohio State.....	481.25 pts.
3-meter dive—Don Harper, Ohio State.....	518.9 pts.
Team—Michigan.....	72 pts.

Women's Indoor (At Dallas, Texas)

100-yd. free—Chris von Saltza, Santa Clara (Calif.) S. C.....	56.8
250-yd. free—Chris von Saltza, Santa Clara (Calif.) S. C.....	2:42.3
500-yd. free—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	5:44.9
100-yd. back—Carin Cone, Ridgewood, N. J.....	1:03.6
200-yd. back—Carin Cone, Ridgewood, N. J.....	2:19.8
100-yd. breast—Patty Kempner, Kris Kristenson S. S., North Hollywood, Calif.....	1:13.0
250-yd. breast—Susie Ordogh, Washington A. C., Seattle.....	3:20.0
100-yd. butterfly—Nancy Ramey, Washington A. C., Seattle.....	1:02.9
220-yd. butterfly—Nancy Ramey, Washington A. C., Seattle.....	2:19.2
400-yd. medley—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	5:03.5
400-yd. freestyle relay—Santa Clara (Calif.) S. C. (Jane Wilson, Dorey Ransom, Susan Honig, Chris von Saltza).....	4:01.8
400-yd. medley relay—Santa Clara (Calif.) S. C. (Chris von Saltza, Dorey Ransom, Jane Wilson, Susan Honig).....	4:28.9
1-meter dive—Barbara Gilders, Detroit A. C.....	432.35 pts.
3-meter dive—Irene MacDonald, Los Angeles A. C.	449.80 pts.
Team—Santa Clara (Calif.) S. C.....	59 pts.

Women's Outdoor (At Topeka, Kan.)

100-m. free—Chris von Saltza, Santa Clara (Calif.) S. C.....	1:03.5
200-m. free—Molly Botkin, Los Angeles A. C.....	2:32.2
400-m. free—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	5:04.1
1,500-m. free—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	20:34.6
100-m. back—Carin Cone, Ridgewood, N. J.....	1:13.5
200-m. back—Chris von Saltza, Santa Clara (Calif.) S. C.....	2:37.4
100-m. breast—Susan Ordogh, Washington A. C., Seattle.....	1:23.8
200-m. breast—Susan Ordogh, Washington A. C., Seattle.....	2:58.6
100-m. butterfly—Nancy Ramey, Washington A. C., Seattle.....	1:10.3
200-m. butterfly—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	2:43.6
400-m. medley—Sylvia Ruuska, Berkeley (Calif.) Y. M. C. A.....	5:43.7
400-m. freestyle relay—Santa Clara (Calif.) S. C. (Jane Wilson, Dorey Ransom, Susan Honig, Chris von Saltza).....	4:30.1
400-m. medley relay—Santa Clara (Calif.) S. C. (Chris von Saltza, Jane Wilson, Dorey Ransom, Ann Warner).....	5:00.9
1-m. dive—Paula Jean Myers, Encino (Calif.) S. C.	146.67 pts.
3-m. dive—Paula Jean Myers, Encino (Calif.) S. C.	146.25 pts.
Platform dive—Paula Jean Myers, Encino (Calif.) S. C.....	285.20 pts.
Team—Santa Clara (Calif.) S. C.....	65 pts.

Long Distance

Men (4 miles)—George Breen, Indianapolis A. C.	1:29:02.0
Women (3 miles)—Donna Graham, Riviera Club, Indianapolis.....	1:17:19.5

ROWING

Source: C. Leverich Brett, Editor, National Association of Amateur Oarsmen Yearbook and NAAO Rowing News.

Intercollegiate Rowing Association

(At Syracuse, N. Y.)

VARSITY (3 miles)—1, Cornell (17:12.1); 2, Navy (17:23.6); 3, Syracuse (17:25.5); 4, Princeton (17:28.9); 5, California (17:31.7); 6, Pennsylvania (17:32.1); 7, Dartmouth (17:33.7); 8, Wisconsin (17:41); 9, M.I.T. (17:44); 10, Columbia (18:26).

JUNIOR VARSITY (3 miles)—1, Cornell (17:33.5); 2, Syracuse (17:33.7); 3, California (17:43.3); 4, Navy (17:47.9); 5, Princeton (18:07.6); 6, Pennsylvania (18:09); 7, Dartmouth (18:14.9); 8, M.I.T. (18:23.4); 9, Columbia (18:38.1)

FRESHMAN (2 miles)—1, Cornell (11:23); 2, Navy (11:27.9); 3, Pennsylvania (11:34.6); 4, Syracuse (11:42.5); 5, Columbia (11:46.9); 6, Dartmouth (11:56.3); 7, Princeton (12:00); 8, M.I.T. (12:09.1); 9, Wisconsin (12:16.4).

Jim Ten Eyck Memorial Trophy—Cornell (20 pts.)

Eastern Assn. of Rowing Colleges

(At Princeton, N. J.—2,000 meters)

Varsity—Yale..... 5:54.4
Junior varsity—Pennsylvania..... 6:04.4
Freshman—Harvard..... 5:57.4
Rowe Cup—Pennsylvania..... 21 pts.

LIGHTWEIGHT

(At Cambridge, Mass.—2,000 meters)

Varsity (Wright Cup)—Harvard..... 7:25.8
Junior varsity—Harvard..... 7:51.8
Freshman—Harvard..... 7:43.8

Yale-Harvard

(At New London, Conn.)

Varsity (4 miles)—Yale..... 22:39.0
Junior varsity (3 miles)—Yale..... 17:05.6
Freshman (2 miles)—Harvard..... 11:13.0

Other Intercollegiate Regattas

Adams Cup (1½ miles)—Harvard..... 9:19.9
Blackwell Cup (2 miles)—Yale..... 9:30.5
Carnegie Cup (1½ miles)—Yale..... 8:35.8
Childs Cup (1 5/16 miles)—Pennsylvania..... 6:23.2
Compton Cup (1½ miles)—Harvard..... 8:40.6
Dad Vail Trophy (1 5/16 miles)—LaSalle..... 6:52.2
Goes Trophy (1½ miles)—Syracuse..... 9:16.0
Oxford-Cambridge (4¼ miles)—Cambridge..... 18:15.0
Pennsylvania-Cornell (2 miles)—Pennsylvania..... 10:08.0
Washington-California (3 miles)—Washington..... 14:30.0

WATER SKIING

United States Championships

(At Pine Mountain, Ga.)

Men—Charles Stearns, Bellflower, Calif.
Champion—Charles Stearns, Bellflower, Calif.
Jumping—Joe Cash, Sarasota, Fla.
Tricks—Charles Stearns, Bellflower, Calif.
Slalom—Simon Khoury, Cypress Gardens, Fla.
Women—Nancie Lee Rideout, Cypress Gardens, Fla.
Mixed doubles—Norine Bardill, Evansville, Ind.—Joe Grimaldi, Detroit
Boys—Roger Ray, Cypress Gardens, Fla.
Girls—Vicki Van Hook, Long Beach, Calif.
Veterans—Jack Killilea, New Orleans

WATER POLO

National A. A. U. Champions

Indoor—New York A. C.
Outdoor—Illinois A. C.

United States Championships

(At Philadelphia—2,000 meters except sprints)

Single sculls—Paul Ignas, Vesper B. C., Philadelphia 7:20.6
Association singles—Paul Ignas, Vesper B. C., Philadelphia 7:29.2
Double sculls—Detroit B. C. (time not taken)
150-lb. singles—Jim Barker, Undine B. C., Philadelphia 7:30.0
150-lb. dash (¼-mi.)—Robert Houston, New York A. C. 1:13.0
150-lb. doubles—West Side R. C., Buffalo, N. Y. 6:52.6
150-lb. quads—Undine B. C., Philadelphia 6:29.4
150-lb. fours with coxswain—Detroit B. C. 6:53.6
150-lb. eights—Detroit B. C. 6:09.0
Pairs with coxswain—Vesper B. C., Philadelphia 7:58.2
Pairs without coxswain—Washington A. C., Seattle 7:09.0
Fours with coxswain—Vesper B. C., Philadelphia 6:42.2
Fours without coxswain—West Side R. C., Buffalo, N. Y. 6:41.2
Eight-oared crews—Vesper B. C., Philadelphia 5:57.2
Team (Barnes Trophy)—Detroit B. C. 196 pts.

British Royal Henley

(At Henley-on-Thames, England—1 5/16 miles)

Grand Challenge Cup (eights)—Trud Club of Lenin-grad, Russia 6:40
Diamond sculls—Stuart McKenzie, Australia 8:06
Thames Challenge Cup—Harvard 150-lb. Varsity 6:57
Stewards Cup (fours)—Barn Cottage R. C., England 7:16
Goblets (pairs)—Tony Leadley-Christopher Davidge, England 7:21
Double sculls—Alex Berkutov-Yuri Tyukalov, Russia 7:16

Royal Canadian Henley

(At Port Dalhousie, Ont.—1 5/16 miles)

Eight-oared crews—Vesper B. C., Philadelphia 6:18.5
Single sculls—Pat Costello; Detroit B. C. 8:14.5
Association singles—Thomas Whayne, Vesper B. C., Philadelphia 7:24.8
Double sculls—Jack Kelly-Bill Knecht, Vesper B. C., Philadelphia 7:14.2
Fours—West Side R. C., Buffalo, N. Y. 6:57.0
Fours with coxswain—Detroit B. C. 6:42.6
Open ¼-mi. dash—Robert Houston, New York A. C. 1:27.0
Team (Maple Leaf Trophy)—Detroit B. C. 279.75 pts.

SYNCHRONIZED SWIMMING

Women's National A. A. U. Champions

INDOOR

(At Des Moines)

Solo—Tony Stewart, Town Club, Chicago
Duet—Rosalind Calcaterra-Mary Jane Gury, Shaw Park, St. Louis
Stunt—Tony Stewart, Town Club, Chicago
Team—Athenians, Oakland Calif. (Lynn Pawson, Loretta Barrious, Susan Laurence, Janet Anthony, Jackie Vargas)

OUTDOOR

(At Houston, Tex.)

Solo—Sandy Giltner, Lansing (Mich.) Sea Sprites
Duet—Rosalind Calcaterra-Mary Jane Gury, Shaw Park, St. Louis
Stunt—Sandy Giltner, Lansing (Mich.) Sea Sprites
Team—Athenians, Oakland, Calif. (Lynn Pawson, Janet Anthony, Loretta Barrious, Jackie Vargas, Susan Laurence)

TENNIS

Wightman Cup (women)—England defeated United States, 4 to 3, at Wimbledon, England.

United States Champions

Singles—Ashley Cooper, Australia (defeated Mal Anderson, Australia, in final, 6-2, 3-6, 4-6, 10-8, 8-6)
Doubles—Ham Richardson, New Orleans-Alex Olmedo, Peru
Women's singles—Althea Gibson, New York (defeated Darlene Hard, Montebello, Calif., in final, 3-6, 6-1, 6-2)
Women's doubles—Darlene Hard, Montebello, Calif.-Jeanne Arth, St. Paul, Minn.
Mixed doubles—Mrs. Margaret Osborne du Pont, Wilmington, Del.-Neale Fraser, Australia

England (Wimbledon)

Singles—Ashley Cooper, Australia (defeated Neale Fraser, Australia, in final, 3-6, 6-3, 6-4, 13-11)
Doubles—Sven Davidson-Ulf Schmidt, Sweden
Women's singles—Althea Gibson, New York (defeated Angela Mortimer, England, in final, 8-6, 6-2)
Women's doubles—Althea Gibson, New York-Maria Bueno Brazil
Mixed doubles—Lorraine Coghlan-Bob Howe, Australia

France

Singles—Mervyn Rose, Australia (defeated Luis Ayala, Chile, in final, 6-3, 6-4, 6-4)
Doubles—Ashley Cooper-Neale Fraser, Australia
Women's singles—Suzy Kormoczi, Hungary (defeated Shirley Bloomer, England, in final, 6-4, 1-6, 6-2)
Women's doubles—Yola Ramirez-Rosa Maria Reyes, Mexico
Mixed doubles—Shirley Bloomer, England-Nicola Pietrangeli, Italy

Australia

Singles—Ashley Cooper, Australia (defeated Mal Anderson, Australia, in final, 7-5, 6-3, 6-4)
Doubles—Ashley Cooper-Neale Fraser, Australia
Women's singles—Angela Mortimer, England (defeated Lorraine Coghlan, Australia, in final, 6-3, 6-4)
Women's doubles—Thelma Long-Mary Hawton, Australia
Mixed doubles—Mary Hawton-Bob Howe, Australia

BADMINTON

Source: Hans Rogind, National Publicity Chairman, American Badminton Association.

U. S. Championships

(At Boston)

Singles—Jim Poole, San Diego, Calif.
Doubles—Finn Kobbero-Jorgen Hansen, Denmark
Women's singles—Judith Devlin, Baltimore
Women's doubles—Judith and Susan Devlin, Baltimore
Mixed doubles—Judith Devlin, Baltimore-Finn Kobbero, Denmark
Veterans doubles—Wayne Schell-Bob Wright, Boston
Women's veterans doubles—Mrs. Louis Kirby, Long Beach, Calif.-Mrs. Thelma Welcome, Glendale, Calif.

All-England Championships (Unofficial World Championships)

(At Wembley, England)

Singles—Erland Kops, Denmark
Doubles—Erland Kops-P. E. Nielsen, Denmark
Women's singles—Judith Devlin, Baltimore
Women's doubles—Margaret Varner, Boston-Heather Ward, England
Mixed doubles—June Timperley-A. D. Jordan, England

Other U. S. Champions

Junior singles—Earl Buchholz, St. Louis
Junior doubles—Earl Buchholz-Charles McKinley, St. Louis
Boys singles—Clark Graebner, Lakewood, Ohio
Boys doubles—Clark Graebner, Lakewood, Ohio-Warren Daane, Cleveland
Interscholastic singles—Ray Senkowski, Hamtramck (Mich.) H. S.
Interscholastic doubles—Frank Froehling-John Karabasz, Coral Gables (Fla.) H. S.
College girls—Darlene Hard, Pomona
Girls singles (18 and under)—Sally Moore, Bakersfield, Calif.
Girls doubles (18 and under)—Karen Hantze, San Diego, Calif.-Helene Weill, Beverly Hills, Calif.
Girls singles (15 and under)—Vicki Palmer, Phoenix, Ariz.
Girls doubles (15 and under)—Vicki Palmer, Phoenix, Ariz.-Carol Rosen, Orlando, Fla.
Senior singles—Gardnar Mulloy, Denver
Senior doubles—Hal Surface-Len Prosser, Kansas City
Women's senior singles—Mrs. Richard Buck, Manchester, Mass.
Women's senior doubles—Mrs. Richard Buck, Manchester, Mass.-Mrs. Q. A. Shaw McKean, Hamilton, Mass.
Father-and-son—Harry Hoffman, Sr. and Jr., Philadelphia

CLAY COURT

Singles—Bernard Bartzen, Dallas, Tex.
Doubles—Barry MacKay, Dayton, Ohio-Sam Giammalva, Houston, Tex.
Women's singles—Mrs. Dorothy Head Knode, Forest Hills, N. Y.
Women's doubles—Mrs. Dorothy Head Knode, Forest Hills, N. Y.-Karol Fageros, Miami, Fla.
Senior singles—Gardnar Mulloy, Denver
Senior doubles—Hal Surface-Len Prosser, Kansas City
Father-and-son—Cecil and John Powsler, Florida, Ill.

NATIONAL COLLEGIATE A. A.

Singles—Alex Olmedo, Southern California
Doubles—Alex Olmedo-Edward Atkinson, Southern California
Team—Southern California

U. S. Indoor

Singles—Richard Savitt, South Orange, N. J.
Doubles—Barry MacKay, Dayton, Ohio-Grant Golden, Wilmette, Ill.
Women's singles—Nancy O'Connell, Chicago
Women's doubles—Nancy O'Connell, Chicago-Carol Hanks, St. Louis
Mixed doubles—Mildred Thornton, Ormond Beach, Fla.-Dr. Donald Manchester, Auburndale, Fla.
Senior singles—Gardnar Mulloy, Denver
Senior doubles—Berkeley Bell, Cresskill, N. Y.-Edgar Nye, New York

LACROSSE

Source: Jack Kelly, Editor, *The Lacrosse Newsletter*, Bay Shore, N. Y.

National Champions

Intercollegiate—Army
Open—Army
North-South Game—South 26, North 6, at Garden City, N. Y.

All-America Selections

FIRST TEAM—Goal: Jim Lewis, Washington and Lee. Defense: Walt Mitchell, Johns Hopkins; Doug Levick, Princeton; Don Tillar, Army. Midfield: Joe Seivold, Washington College; Ernie Betz, Maryland; Paul Loewer, Baltimore. Attack: Billy Morrill, Johns Hopkins; Mickey Webster, Johns Hopkins; Dick Corrigan, Maryland.

BOWLING

American Bowling Congress Tournament

(At Syracuse, N. Y.)

All-events—Al Faragalli, Paterson, N. J.	2,043
Singles—Ed Shay, Chester, Pa.	733
Doubles—Bill Tucker-James Vrenick, St. Louis	1,414
Masters—Tom Hennessey, St. Louis	W 7, L 0

TEAM

All-events—Falstaff Beers, St. Louis	9,608
Open—Falstaff Beers, St. Louis	3,210
Booster—Gleason Truers, Rochester, N. Y.	2,881

National Match Game Champions

Bowling Proprietors' Association of America

Singles—Don Carter, St. Louis	311.03 pts.
Doubles—Don Carter-Tom Hennessey, St. Louis	31 pts.
Team—Falstaff Beers, St. Louis	12,139
Women's singles—Merle Matthews, Long Beach, Calif.	145.09 pts.
Women's doubles—Marion Ladewig, Grand Rapids, Mich.—LaVerne Carter, St. Louis	6,380
Women's team—Fanatorium Majors, Grand Rapids, Mich.	11,125
Duck pin all-star—Norman Titus, Silver Spring, Md.	166.16 pts.
Singles handicap—Warren Wirtz, Cheviot, Ohio	911
Team handicap—Dator Agency, Suffern, N. Y.	3,103

Women's International Bowling Congress Tournament

(At San Francisco)

All-events—Mae Plogman, Chicago	1,828
Singles—Ruth Hertel, Lexington, Tenn.	622
Doubles—Jean Schultz-Tess Johns, Cleveland	1,173
Team—Allgauer Restaurant, Chicago	2,972

DUCK PINS

National Duck Pin Bowling Congress Championships

(At New Haven, Conn.)

All-events—Joe Serapilla, Torrington, Conn.	1,227
Singles—Francis Toolin, Fall River, Mass.	456
Doubles—Ralph DeMatteis-Mac Carboni, New Haven, Conn.	854
Team—East Haven All-Stars, East Haven, Conn.	1,878
Mixed doubles—Kay Foley-Norman Chouinard, Fall River, Mass.	771

WOMEN

All-events—Lee Meyers, Baltimore	1,128
Singles—Mary Simmons, Manchester, Conn.	396
Doubles—Nora McNamara-Anne Clark, New Bedford, Mass.	758
Team—Fulford Radio, Washington, D. C.	1,738

HORSESHOE PITCHING

World Championships

(At Murray, Utah)

Champion—Fernando Isais, Los Angeles	.843
Class B—Eugene Mendenhall, Noblesville, Ind.	.619
Women—Vicki Chapelle, Portland, Ore.	.609
Junior—Billy Backer, Murray, Utah	

National A. A. U. Championships

(At Winston-Salem, N. C.)

Singles—Glenn Riffe, Dayton, Ohio	
Doubles—Glenn Riffe, Charles Sipple, Dayton, Ohio	

GYMNASTICS

World Gym Crown to Soviets

Russia won the world's gymnastic championship in competition at Moscow in 1958. Japan was second. The United States participated for the first time and placed seventh among the 15 teams in the meet.

National A. A. U. Championships

(At San Fernando, Calif.)

All-around—John Beckner, Los Angeles Turners	111.05
Long horse—Don Tonry, Pond's Palaestrum	18.45
Calisthenics—Atilla Takach, U. of So. California	18.95
Side horse—Arthur Shurlock, unattached	19.00
Still rings—Leonard Harris, So. California G. C.	19.00
Parallel bars—John Beckner, Los Angeles Turners	19.60
Horizontal bar—John Beckner, Los Angeles Turners	19.65
Tumbling—L. Nacera, So. California G. C.	9.55
Trampoline—Glenn Wilson, Western Illinois	9.75
Swinging rings—Ken Cheney, Bruin Alumni	9.45
Rope climb—Robert Manning, Los Angeles Turners	2.85
Team—Los Angeles Turners	52½ pts.

WOMEN

(At Indianapolis)

All-around—Ernestine Russell, Windsor, Ont.	74.60
Calisthenics—Muriel Davis, Athenaeum Turners, Indianapolis	19.20
Side horse vault—Ernestine Russell, Windsor, Ont.	19.05
Uneven parallel bars—Myra Perkins, Athenaeum Turners, Indianapolis	18.60
Balance beam—Ernestine Russell, Windsor, Ont.	19.00
Tumbling—Teresa Montefusco, Peoria, Ill.	8.90

National Collegiate

(At East Lansing, Mich.)

Free exercise—Abie Grossfeld, Illinois	89
Rope climb—Garvin Smith, Los Angeles State	3.1 s.
Side horse—Bill Buck, Iowa	93.5
Horizontal bar—Abie Grossfeld, Illinois	94
Trampoline—Don Harper, Ohio State	90.5
Parallel bars—Ted Muzyczko, Michigan State	92
Flying rings—Tom Darling, Pittsburgh	93.5
Tumbling—Frank Hailand, Illinois	95
All-around—Abie Grossfeld, Illinois	511
Team—Illinois and Michigan State (tie)	79

BILLIARDS

National Champions

Pocket billiards—Willie Mosconi, Philadelphia	
Amateur 3-cushion—Edward Lee, New York A. C.	

National Intercollegiate

Individual

Team

Pocket....	Lloyd Courter, Iowa	Bradley
Straight rail	Jim Perez, Iowa	Washington State
3-cushion..	Harold Murphy, Iowa State	Texas

DOG SHOWS

Best in Show

Westminster (New York)—Ch. Puttencove Promise, standard poodle, owned by Mr. and Mrs. George Putnam, Puttencove Kennels, Manchester, Mass.	
Morris and Essex (Madison, N. J.)—Not held.	
International (Chicago)—Ch. Ben Dar's Winning Stride, English setter, Mr. and Mrs. Raymond O'Connell, Hidden Lane Kennels, Livonia, Mich.	
Eastern (Boston)—Ch. Puttencove Promise, standard poodle, owned by Mr. and Mrs. George Putnam, Puttencove Kennels, Manchester, Mass.	

GOLF

U. S. Open Championship

(At Southern Hills C. C., Tulsa, Okla.)

Tommy Bolt, Crystal River, Fla....	71	71	69	72-283
Gary Player, South Africa.....	75	68	73	71-287
Julius Boros, Southern Hills, N. C.	71	75	72	71-289
Gene Littler, El Cajon, Calif.....	74	73	67	76-290
Bob Rosburg, Napa, Calif.....	75	74	72	70-291
Walter Burkemo, Franklin, Mich...	75	74	70	72-291
Jay Hebert, Sanford, Fla.....	77	76	71	79-293
Don January, Eastland, Tex.....	79	73	68	73-293
Dick Metz, Fort Worth, Tex.....	71	78	73	71-293
Tommy Jacobs, Whittier, Calif.....	76	75	71	72-294
Ben Hogan, Fort Worth, Tex.....	75	73	75	71-294
Frank Stranahan, Crystal River, Fla.	72	72	75	75-294
Marty Furgol, Lemont, Ill.....	79	74	72	295
Bill Casper Jr., Apple Valley, Calif.	79	70	75	71-295
*Charles Coe, Oklahoma City.....	75	71	75	74-295

* Amateur.

Other Champions

British Open—Peter Thomson, Australia.....	278(a)
National P. G. A.—Dow Finsterwald, Tequesta, Fla...	276
Masters—Arnold Palmer, Latrobe, Pa.....	284
Eastern Open—Art Wall, Jr., Pocono Manor, Pa.....	276(b)
Western Open—Doug Sanders, Miami Beach, Fla.....	275
Canadian Open—Wes Ellis, Ridgfield, N. J.....	267
Canadian P. G. A.—Henry Martell, Edmonton, Alta...	209
Canadian P. G. A. (match play)—Al Balding, Toronto	
French Open—Flory von Donck, Belgium.....	276(c)
World Senior—Norman Sutton, Great Britain	
P. G. A. Senior—Gene Sarazen, Germantown, Pa.....	288

(a) Won title in 36-hole playoff. (b) Won title on first hole of three-way sudden-death playoff. (c) Won title in 36-hole playoff.

Other P. G. A. Winners

Los Angeles Open—Frank Stranahan, Toledo, Ohio....	275
Ting Crosby National—Bill Casper, Apple Valley, Calif.	277
Tijuana Open—Dutch Harrison, St. Louis.....	280
Thunderbird Invitation—Ken Venturi, San Francisco...	269
Panama Invitational—Bob Watson, West Palm Beach...	271
Phoenix Open—Ken Venturi, San Francisco.....	274
Jamaica Open—Bob Toski, Miami, Fla.....	283*
Tucson Open—Lionel Hebert, Lafayette, La.....	265
Puerto Rico Open—Bob Toski, Miami, Fla.....	288
Texas Open—Bill Johnston, Provo, Utah.....	274
Houston Invitational—Ed Oliver, Canton, Mass.....	281
Baton Rouge Open—Ken Venturi, San Francisco.....	276
New Orleans Open—Bill Casper, Jr., Apple Valley, Calif.	278*
Pensacola Open—Doug Ford, Mahopac, N. Y.....	278
St. Petersburg Open—Arnold Palmer, Latrobe, Pa.....	276
Azalea Open—Howie Johnson, Glenwood, Ill.....	282*
Greensboro Open—Bob Goalby, Darien, Conn.....	275
Kentucky Derby Open—Gary Player, South Africa....	274
Tournament of Champions—Stan Leonard, Vancouver...	275
Lafayette Open—Jay Hebert, Sanford, Fla.....	273
Colonial National—Tommy Bolt, Paradise, Fla.....	282
Hot Springs Open—Julius Boros, Mid Pines, N. C.....	273
Greenbrier Invitational—Sammy Snead, White Sulphur Springs, W. Va.....	264*
Memphis Invitation—Billy Maxwell, Odessa, Tex.....	267
Kansas City Open—Ernie Vossler, Midland, Tex.....	269
Dallas Open—Sammy Snead, White Sulphur Springs, W. Va.....	272*
Buick Open—Bill Casper, Jr., Apple Valley, Calif.....	285
Pepsi-Boys' Club—Arnold Palmer, Latrobe, Pa.....	273
Rubber City Open—Art Wall, Jr., Pocono Manor, Pa...	269*
Insurance City Open—Jack Burke, Kiamisha Lake, N.Y.	268
Chicago Open—Ken Venturi, San Francisco.....	272
Miller Open—Cary Middlecoff, Hollywood, Fla.....	264
St. Paul Open—Mike Souchak, Grossinger, N. Y.....	263
Vancouver Open—Jim Ferree, Winston-Salem, N. C.....	270
Utah Open—Dow Finsterwald, Tequesta, Fla.....	267
Denver Centennial Open—Tommy Jacobs, Whittier, Calif.	266
Hesperia Open—John McMullin, Fair Oaks, Calif.....	271

* Won in playoff.

Amateur

U. S.—Charles Coe, Oklahoma City (defeated Tom Aaron, Gainesville, Ga., in final, 5 and 4)	
British—Joe Carr, Ireland (defeated Alan Thirlwell, England, in final, 3 and 2)	
French—Henri de Lamaze, France (defeated Tim Holland, Rockville Centre, N. Y., in final, 4 and 3)	
Canadian—Bruce Castator, Toronto	
Southern—Hugh Royer, Columbus, Ga.	
Western—James (Billy) Key, Columbus, Ga.	
Trans-Mississippi—Jack Nicklaus, Columbus, Ohio	
North and South—Dick Chapman, Pinehurst, N. C.	
National Collegiate A. A.—Phil Rodgers, Houston	
U. S. Public Links—Dan Sikes, Jacksonville, Fla.	
U. S. Senior—Tom Robbins, Pinehurst, N. C.	
U. S. Junior—Gordon Baker, Florence, S. C.	

TEAM

World Amateur (men)—Australia	
Curtis Cup (women)—United States 4½, Great Britain 4½ (tie), at Brae Burn C. C., West Newton, Mass. (Great Britain, as defender, automatically retained possession of cup.)	
National Collegiate A. A.—Southern California	

WOMEN

U. S. Open Championships

(At Forest Lake C. C., Pontiac, Mich.)

Mickey Wright, Chula Vista, Calif.....	74	72	70	74-290
Louise Suggs, Sea Island, Ga.....	75	74	75	71-295
Fay Crocker, Uruguay.....	79	68	76	74-297
Alice Bauer, Paradise, Fla.....	76	77	75	72-300
Betty Jameson, San Antonio, Tex.....	75	80	74	74-303
Betsy Rawls, Spartanburg, S. C.....	79	82	73	70-304
Wiffi Smith, St. Clair, Mich.....	81	76	73	75-305
Mrs. Jackie Pung, San Francisco.....	75	77	77	76-305
Vonnie Colby, Miami Beach, Fla.....	77	76	75	78-306
Patty Berg, St. Andrews, Ill.....	78	78	77	73-306
*Anne Quast, Marysville, Wash.....	82	73	76	76-307
Mary Lena Faulk, Thomasville, Ga.....	79	76	79	73-307
Beverly Hanson, Indio, Calif.....	79	77	75	76-307

* Amateur.

Other Champions

National P. G. A.—Mickey Wright, Chula Vista, Calif.	288
Titleholders—Beverly Hanson, Indio, Calif.....	299
Western Open—Patty Berg, St. Andrews, Ill.....	293
Triangle Round Robin—Louise Suggs, Sea Island, Ga. 51 pts.	
Babe Zaharias Open—Louise Suggs, Sea Island, Ga.	214
Canadian Open—Mrs. Marlene Stewart Streit, Fonthill, Ont.	

Amateur

U.S.—Anne Quast, Marysville, Wash. (defeated Barbara Romack, Sacramento, Calif., in final, 3 and 2)	
British—Mrs. George Valentine, Scotland (defeated Elizabeth Price, England, in final, 1 up)	
Eastern—Mary Pat Janssen, Charlottesville, Va.	
Western—Barbara McIntire, Jupiter, Fla.	
Southern—Mrs. Mary Ann Reynolds, Albany, Ga.	
North and South—Mrs. Philip J. Cudone, West Caldwell, N. J.	
Trans-Mississippi—Marjorie Lindsay, Decatur, Ill.	
Canadian—Mrs. Marlene Stewart Streit, Fonthill, Ont.	
National Intercollegiate—Carole Ann Pushing, Carleton	
U. S. Junior—Judy Eller, Old Hickory, Tenn.	

VOLLEYBALL

U. S. Volleyball Assn. Champions

Open—Hollywood (Calif.) Y.M.C.A. Stars	
Masters—Hollywood (Calif.) Y.M.C.A. Comets	
Intercollegiate—Florida State	
Women—Santa Monica (Calif.) Mariners	

A. A. U. Champions

Men—Wilson Y.M.C.A., Chicago	
Women—Gage Park, Chicago	

INTERCOLLEGIATE CONFERENCE TEAM CHAMPIONS

National Collegiate Athletic Association (N.C.A.A.)

Baseball—Southern California
 Basketball—Kentucky (university division); South Dakota (college division)
 Boxing—San Jose State
 Fencing—Illinois
 Golf—Houston
 Gymnastics—Michigan State, Illinois (tie)
 Ice hockey—Denver
 Skiing—Dartmouth
 Swimming—Michigan
 Tennis—Southern California
 Track and field—Southern California
 Wrestling—Oklahoma State

(For individual champions, see index for specific sports)

ATLANTIC COAST

Baseball—Clemson
 Basketball—Maryland
 Golf—Wake Forest
 Lacrosse—Maryland
 Swimming—North Carolina
 Tennis—North Carolina
 Track—Maryland (indoor and outdoor)
 Wrestling—Maryland

BIG EIGHT

Baseball—Missouri
 Basketball—Kansas State
 Golf—Oklahoma State
 Swimming—Oklahoma
 Tennis—Colorado and Oklahoma State (tie)
 Track—Kansas (indoor and outdoor)
 Wrestling—Iowa State

BIG TEN

Baseball—Minnesota
 Basketball—Indiana
 Fencing—Illinois
 Golf—Purdue
 Gymnastics—Illinois
 Swimming—Michigan
 Tennis—Iowa
 Track—Illinois (indoor and outdoor)
 Wrestling—Iowa

BORDER

Baseball—Arizona
 Basketball—Arizona State (Tempe)
 Rifle—New Mexico State
 Tennis—Arizona
 Track—Arizona State (Tempe)

EASTERN COLLEGE

Eastern Baseball League—Harvard
 Intercollegiate Fencing Association—Columbia
 Eastern Golf Association—Yale
 Eastern Gymnastic League—Army
 Intercollegiate Rowing Association—Cornell
 Eastern Association of Rowing Colleges—Yale
 Eastern Swimming League—Yale
 Eastern Tennis Association—Harvard
 Heptagonal Games Association, track and field—Cornell (indoor and outdoor)
 I. C. A. A. A., track and field—Villanova (indoor and outdoor)
 Metropolitan Track and Field Association—Manhattan (indoor and outdoor)
 Eastern Wrestling Association—Cornell

IVY LEAGUE

Basketball—Dartmouth
 Fencing—Columbia
 Golf—Yale
 Ice Hockey—Harvard
 Lacrosse—Princeton
 Squash—Yale
 Wrestling—Cornell

MASON-DIXON

Baseball—Hampden-Sydney
 Basketball—American
 Golf—Baltimore
 Soccer—Catholic
 Swimming—Loyola (Md.)
 Tennis—Lynchburg and Johns Hopkins (tie)
 Track—Roanoke (indoor and outdoor)
 Wrestling—Baltimore

MID-AMERICAN

Baseball—Western Michigan
 Basketball—Miami (Ohio)
 Golf—Miami (Ohio)
 Swimming—Bowling Green State
 Tennis—Western Michigan
 Track—Western Michigan
 Wrestling—Kent State

MISSOURI VALLEY

Baseball—Cincinnati
 Basketball—Cincinnati
 Golf—Houston
 Swimming—Cincinnati
 Tennis—Houston
 Track—Houston
 Arthur E. Eilers Memorial Trophy (all sports)—Houston

MOUNTAIN STATES

Baseball—Brigham Young
 Basketball—Wyoming
 Golf—New Mexico
 Swimming—Denver
 Tennis—Utah
 Track—Brigham Young
 Wrestling—Wyoming

N.A.I.A.

Baseball—San Diego State
 Basketball—Tennessee State
 Golf—Lamar Tech State
 Swimming—North Central
 Tennis—Lamar State Tech
 Track—Occidental
 Wrestling—Mankato State Teachers

NATIONAL JR. COLLEGE

Basketball—Kilgore, Tex.
 Track—Victoria, Tex.

PACIFIC COAST

Baseball—Southern California
 Basketball—Oregon State and California (tie)
 Golf—Southern California
 Swimming—Washington (North); Stanford (South)
 Tennis—U. C. L. A.
 Track—Southern California

SOUTHEASTERN

Baseball—Auburn
 Basketball—Kentucky
 Swimming—Florida
 Tennis—Tulane
 Track—Louisiana State

SOUTHERN

Baseball—Richmond and George Washington (tie)
 Basketball—West Virginia
 Golf—George Washington and Davidson (tie)
 Rifle—V. P. I.
 Swimming—V. M. I.
 Tennis—George Washington
 Track—V. M. I. (indoor); William and Mary (outdoor)
 Wrestling—V. P. I.

SOUTHWEST

Baseball—Texas
 Basketball—Arkansas and Southern Methodist (tie)
 Golf—Arkansas
 Swimming—Southern Methodist
 Tennis—Rice
 Track—Texas

Pacific Coast Conference to Dissolve

The Pacific Coast Intercollegiate Athletic Conference voted in 1958, its 43rd year, to dissolve, effective June 30, 1959. Four member schools, California, Southern California, U.C.L.A. and Washington, later created the "Big Four," an association to become active on July 1, 1959.

SOVIET UNION vs. UNITED STATES

The Soviet Union and the United States engaged in dual athletic competition for the first time in 1958. These are the results of the various contests:

TRACK AND FIELD

(At Moscow, July 27-28)

United States 126, U.S.S.R. 109*

WINNING PERFORMANCES

100 meters—Ira Murchison, United States...	10.2
200 m.—Ed Collimore, United States...	21.3
400 m.—Glenn Davis, United States...	45.6
800 m.—Tom Courtney, United States...	1:48.8
1,500 m.—Jim Grelle, United States...	3:46.7
5,000 m.—Hubert Pyrnakivi, U.S.S.R. (Bill Dellinger, United States, placed 2d)...	14:28.4
10,000 m.—Evgeny Zhukov, U.S.S.R. (Jerry Smartt, United States, placed 3d)...	29:59.8
3,000-m. steeplechase—Semen Rzhishchin, U.S.S.R. (Phil Coleman, United States, placed 2d)...	8:42.0
20,000-m. walk—Leonid Spirin, U.S.S.R. (James Hewson, United States, placed 3d)...	1:33:43.2
110-m. high hurdles—Ancil Robinson, United States...	14.5
400-m. hurdles—Glenn Davis, United States...	50.4
400-m. relay—United States (Ira Murchison, Ira Davis, James Segrest, Ed Collimore)...	39.6
1,600-m. relay—United States (Jack Yerman, Tom Courtney, Eddie Southern, Glenn Davis)...	3:07.0
High jump—Yuri Stepanov, U.S.S.R. (Charles Dumas, United States, placed 3d)...	6 ft. 11½ in.
Broad jump—Ernie Shelby, United States...	26 ft. ½ in.
Hop, step and jump—Oleg Ryakhovski, U.S.S.R. (Kent Floerke, United States, placed 3d)...	54 ft. 5½ in.
Pole vault—Vladimir Bulatov, U.S.S.R. (Ron Harris, United States, placed 2d)...	14 ft. 9 in.
Shot put—Parry O'Brien, United States...	62 ft. 9½ in.
Discus—Rink Babka, United States...	187 ft. ½ in.
Javelin—Vladimir Kuznetsov, U.S.S.R. (Al Cantello, United States, placed 3d)...	244 ft. 11½ in.
Hammer—Harold Connolly, United States...	220 ft. 8½ in.
Decathlon—Rafer Johnson, United States...	8,302 pts.

WOMEN'S TRACK AND FIELD

(At Moscow, July 27-28)

U.S.S.R. 63, United States 44*

100 meters—Barbara Jones, United States...	11.6
200 m.—Lucinda Williams, United States...	24.4
800 m.—Elizaveta Ermolaeva, U.S.S.R. (Lillian Green, United States, placed 3d)...	2:11.8
80-m. hurdles—Galina Bystrova, U.S.S.R. (Lauretta Foley, United States, placed 3d)...	10.8
400-m. relay—United States (Isabel Daniels, Lucinda Williams, Margaret Matthews, Barbara Jones)...	44.8

High jump—Taisya Chenshik, U.S.S.R. (Barbara Brown, United States, placed 3d)...	5 ft. 4¾ in.
Broad jump—Aida Chuiko, U.S.S.R. (Annie Smith, United States, placed 3d)...	19 ft. 6¾ in.
Shot put—Mrs. Earlene Brown, United States	54 ft. 3¾ in.
Discus—Nina Ponomareva, U.S.S.R. (Mrs. Earlene Brown, United States, placed 2d)	170 ft. 10¾ in.
Javelin—Biruta Zalagaitis, U.S.S.R. (Marjorie Larney, United States, placed 3d)...	164 ft. 6¾ in.

* Although United States officials regarded the men's and women's track and field meets as separate contests, the Soviets merged the scoring of both to announce they had won the overall competition by a score of 172-170.

ROWING

(At Moscow, July 19—2,000 meters)

Eight oared crews—United States (U. of Washington)...	6:18.8
Single sculls—Vyacheslav Ivanov, U.S.S.R. (Tom McDonough, United States, placed 4th)...	7:57.4
Pairs—U.S.S.R., Central Army Club, Moscow (United States, John Fish-Gene Phillips, U. of Washington, placed 3d)...	7:43.4

BASKETBALL

Site	Date	Result
Moscow	Apr. 25	United States 74, U.S.S.R. 68
Moscow	Apr. 26	United States 81, U.S.S.R. 68
Tbilisi	Apr. 28	United States 95, U.S.S.R. 46
Tbilisi	Apr. 29	United States 59, U.S.S.R. 41
Leningrad	May 3	United States 76, U.S.S.R. 72
Leningrad	May 5	United States 101, U.S.S.R. 58

WOMEN'S BASKETBALL

Moscow	Apr. 25	U.S.S.R. 61, United States 46
Moscow	Apr. 26	U.S.S.R. 48, United States 41
Tbilisi	Apr. 28	United States 42, U.S.S.R. 37
Tbilisi	Apr. 29	United States 43, U.S.S.R. 34
Leningrad	May 3	United States 54, U.S.S.R. 44
Leningrad	May 4	United States 58, U.S.S.R. 42

WEIGHTLIFTING

Chicago	May 12	U.S.S.R. 6, United States 1
Detroit	May 15	U.S.S.R. 4, United States 3
New York	May 17	U.S.S.R. 4, United States 3

WRESTLING

Norman, Okla.	Apr. 11	U.S.S.R. 7, United States 1
Stillwater, Okla.	Apr. 12	U.S.S.R. 5, United States 1*
Tulsa, Okla.	Apr. 15	U.S.S.R. 5, United States 0†
New York	Apr. 17	U.S.S.R. 6, United States 1†

* 2 matches drawn. † 3 matches drawn. ‡ 1 match drawn.

TABLE TENNIS

Source: Peter W. Roberts, U.S. Table Tennis Assn.

U. S. Open Championships

(At Asbury Park, N.J.)

Singles—Martin Reisman, New York
 Doubles—Richard Miles-Martin Reisman, New York
 Women's singles—Susie Hoshi, University of So. California
 Women's doubles—Sharon Acton, Wilmington, Calif.-Valerie Smith, Los Angeles
 Mixed doubles—Mrs. Leah Neuberger-Sol Schiff, New York
 Junior singles—Len Cooperman, Los Angeles
 Junior girls singles—Sharon Acton, Wilmington, Calif.

Senior singles—Dr. Andreas Gal, Freeport, N. Y.
 Senior doubles—Tibor Hazi, Chevy Chase, Md.-Laszlo Bellak, Miami, Fla.

English Open

Singles—Ferenc Sido, Hungary
 Doubles—Ferenc Sido-Zoltan Berczik, Hungary
 Women's singles—Mrs. Agnes Simon, Hungary
 Women's doubles—Ann Haydon-Pam Mortimer, England
 Mixed doubles—Eva Hoczian-Ferenc Sido, Hungary

RIFLE AND PISTOL SHOOTING

Source: Paul B. Cardinal, Director, Public Relations, National Rifle Association of America.

World Championships (At Moscow, U.S.S.R.)

Free rifle—V. Ylonen, Finland.....	1136
Free pistol—M. Umarov, U.S.S.R.....	565
Rapid fire pistol—A. Kropotin, U.S.S.R.....	592
Running deer—Joe Deckert, United States.....	223
Clay pigeon—Francis J. Eisenhauer, United States.....	289

TEAM

Free rifle—U.S.S.R.....	5575
Smallbore rifle—U.S.S.R.....	5715
Free pistol—U.S.S.R.....	2776
Rapid fire pistol—U.S.S.R.....	2361
Running deer—U.S.S.R.....	856

National Championships

OUTDOOR

(At Camp Perry, Ohio)

Women's smallbore rifle—Janet S. Fridwell, Toledo	6373
Smallbore rifle—Robert K. Moore, Washington, Pa.....	6385
High power (NRA match rifle)—Middleton W. Tompkins, Los Angeles.....	493
High power (M-1 service rifle)—T/Sgt. V. D. Mitchell, USMC.....	493
Women's high power (NRA match rifle)—Mrs. Miralotte Ickes, Berkeley, Calif.....	485
Women's high power (M-1 service rifle)—Lt. Claire A. Archambault, USA.....	475
Pistol—James E. Clark, Shreveport, La.....	2598
Women's pistol—Mrs. Gertrude Backstrom, Hoquiam, Wash.....	2573

INDOOR

Smallbore rifle—1st Lt. Daniel B. Puckel, USA.....	795
Women's smallbore rifle—Laura J. Boyt, Renton, Wash.....	785
Pistol—M/Sgt. Richard N. Stineman, USA.....	875
Women's pistol—Mrs. Gertrude Backstrom, Hoquiam, Wash.....	866

SKEET SHOOTING

National Championships

(At Waterford, Mich.)

All-around—Kenneth Sedlecky, Baldwin, Mich.....	540 x 550
All gauge—M./Sgt. Harold E. Myers, Westover AFB, Mass.....	250 x 250
20 gauge—Ed C. Scherer, Waukesha, Wis.....	100 x 100
Small gauge—Louis Gordon, Texarkana, Ark.....	100 x 100
Sub-small gauge—Alex H. Kerr, Beverly Hills, Calif.....	98 x 100
Champion of champions (all gauge)—Robert Beikirch, Rochester, N. Y.....	100 x 100

TRAPSHOOTING

Grand American Handicap

(At Vandalia, Ohio)

Men—Emerson Clark, Preston, Ont.	
Women—Mrs. Mary Meadows, Grimes, Iowa	
Junior—James D. Overstreet, Hannibal, Mo.	
Sub-junior—J. R. Wright, Marysville, Ind.	

National Amateur Championships

(At Pelham Manor, N. Y.)

Singles—Ben Higginson, Newburgh, N. Y.....	197
Handicap—Al Streelman, Paterson, N. J.....	96
Doubles—Nick Egan, New York.....	92
Women—Mrs. Mary Christopher, Bristol, Pa.....	184
Junior—John LaRoche, New Rochelle, N. Y.....	182
Senior—Ben Higginson, Newburgh, N. Y.....	197

ANGLING AND CASTING

Source: Paul N. Jones, Executive Secretary, National Association of Angling and Casting Clubs.

National Championships (At New Orleans)

DISTANCE—COMBINED

	ft.
All distance—Jon Tarantino, San Francisco.....	3,232
Flies—Ed Lanser, St. Louis.....	992
Baits—Jon Tarantino, San Francisco.....	2,251

DISTANCE—SINGLE EVENT

	long	cast
Trout fly—Richard Ward, Washington, D. C..	151 1/3	158
Salmon fly—Marion Garber, Toledo, Ohio...	193	203
3/8-oz. bait—Jon Tarantino, San Francisco...	355 2/3	371
5/8-oz. bait—Jon Tarantino, San Francisco...	394 2/3	400

ACCURACY—COMBINED

	pts.
All accuracy—Charles Sutphin, Indianapolis.....	392
Flies—Charles Sutphin, Indianapolis.....	200
Baits—William Peters, Toledo, Ohio.....	197

ACCURACY—SINGLE EVENT

	pts.
Dry fly—Charles Sutphin, Indianapolis.....	100
Wet fly—George Applegren, Chicago.....	100
3/8-oz. bait—William Peters, Toledo, Ohio.....	99
5/8-oz. bait—Marion Garber, Toledo, Ohio.....	99

ROLLER SKATING

A. R. S. A. Championships

Source: U. S. Amateur Roller Skating Association

(At Bladensburg, Md.)

Singles—Paul Zukowski, Elizabeth, N. J.	
Women's singles—Dawn Brown, Trenton, N. J.	
Mixed pairs—Diane Ludwig-Paul Zukowski, Elizabeth, N. J.	
Women's pairs—Nancy Galbraith-Linda Kobane, Livonia, Mich.	
Dance—Carolyn Elias-William Thelgen, Levittown, N. Y.	
Speed—James Nolan, Harvey, Ill.	
Women's speed—Patricia Lewis, Bladensburg, Md.	
Relay—George Meadows-Michael Nash, Washington, D. C.	
Fours—Elizabeth, N. J. (Barbara Jablonski, Ernest Schmid, Diane Ludwig, Paul Zukowski)	

Rink Operators Champions

Source: Roller Skating Rink Operators Association.

(At Cleveland)

Singles—Ricky Mullican, Long Beach, Calif.	
Women's singles—Carolyn Sliker, Oklahoma City	
Pairs—Ruth Heeseman-Kenneth Trotter, Mineola, N. Y.	
Dance—Claire Ferrell-Charles Wahlig, Elmont, N. Y.	
Fours—Santa Ana, Calif. (Geraldine Daniels, Paul Parke, Tina Seabern, Jack Maguire)	
Speed—Richard Edwards, Wichita, Kans.	
Women's speed—Suzanne Richardson, Detroit	
Relay—Wichita, Kans. (Patrick Carter, Jerry Decker, Richard Edwards, Charles Stover)	
Women's relay—Wichita, Kans. (Lynda Stawitz, Delsia Storey, Barbara Solter, Jody Fehring)	
Mixed relay—Wichita, Kans. (Barbara Solter, Jody Fehring, Patrick Carter, Charles Stover)	

ROQUE

American Roque League

Champion—Bobby Arnold, Los Angeles	
Second Division—Ivy Huddleston, Lubbock, Tex.	

BOXING

World Championship Fights in 1958

Date	Title at stake	Defender	Challenger	Winner	Round(s)	Where held
Mar. 25	Middleweight	Carmen Basilio	Ray Robinson	Robinson	15	Chicago
Apr. 1	Featherweight	Hogan (Kid) Bassey	Ricardo Moreno	Bassey	KO 3	Los Angeles
Apr. 19	Flyweight	Pascual Perez	Ramon Arias	Perez	15	Caracas
May 7	Lightweight	Joe Brown	Ralph Dupas	Brown	KO 8	Houston
June 6	Welterweight	*Virgil Akins	*Vince Martinez	Akins	KO 4	St. Louis
July 23	Lightweight	Joe Brown	Kenny Lane	Brown	15	Houston
Aug. 18	Heavyweight	Floyd Patterson	Roy Harris	Patterson	KO 12	Los Angeles

* Fought for title vacated by Carmen Basilio.

AMATEUR BOXING

National A. A. U. Championships

(At Boston)

112-lb.—Ray Perez, Hawaii
 119-lb.—Charles Branch, Philadelphia
 125-lb.—John (Patrick) Britt, Philadelphia
 132-lb.—Adam Ellison, Columbus, Ohio
 139-lb.—Vincent Shomo, New York
 147-lb.—Grey Gauvin, New York
 156-lb.—William Pickett, New York
 165-lb.—Jose Torres, New York
 178-lb.—Sylvester Banks, St. Louis
 Heavyweight—James Blythe, Hartford, Conn.
 Team—Metropolitan Assn. (25 pts.)

National Collegiate

(At Sacramento, Calif.)

112-lb.—T. C. Chung, San Jose State
 119-lb.—Robert Tafoya, San Jose State
 125-lb.—Dave Abeyta, Idaho State
 132-lb.—Dick Rall, Washington State
 139-lb.—Welvin Stroud, San Jose State
 147-lb.—Walt Shepherdson, Idaho State
 156-lb.—Jess Klinkenberg, Washington State
 165-lb.—Jim Flood, Sacramento State
 178-lb.—John Horne, Michigan State
 Heavyweight—Archie Milton, San Jose State
 Team—San Jose State (33 pts.)

WEIGHTLIFTING

World Championships

(At Stockholm, Sweden)

	lbs.
123-lb.—Vladimir Stogov, U.S.S.R.....	755.2
132-lb.—Isaac Berger, United States.....	804.7
148-lb.—Victor Boushouyev, U.S.S.R.....	859.8
165-lb.—Tommy Kono, United States.....	948
181-lb.—Trofim Lomakin, U.S.S.R.....	970
198-lb.—Arkadi Vorobiev, U.S.S.R.....	1,025
Heavyweight—Alexei Medvedev, U.S.S.R.....	1,069.1
Team—U.S.S.R.....	45 pts.

National A. A. U.

(At Los Angeles)

	Press	Snatch	C & J	Total
123-lb.—Charles Vinci, Jr., York, Pa....	225	220	270	715
132-lb.—Isaac Berger, York, Pa.....	255	235	310	800
148-lb.—Kenzie Onuma, Japan.....	240	235	320	795
165-lb.—Tommy Kono, Honolulu.....	280	270	340	890
181-lb.—Jim George, Akron, Ohio.....	270	270	340	880
198-lb.—Fred Schutz, York, Pa.....	285	275	365	925
225-lb.—David Sheppard, York, Pa. . .	305	280	375	960
Heavyweight—David Ashman, Santa Monica, Calif.....	280	320	400	1000

WRESTLING

National A. A. U. Championships

(At San Francisco)

FREE STYLE

114½-lb.—Tsukukisa Torikura, Japan
 125½-lb.—Terry McCann, Tulsa (Okla.) Y. M. C. A.
 136½-lb.—Noboru Ikeda, Japan
 147½-lb.—Newt Copple, Lincoln, Neb.
 160½-lb.—Larry Ten Pas, U. S. Army
 174-lb.—Wenzel Hubel, Los Angeles Y. M. C. A.
 191-lb.—Frank Rosenmayr, San Francisco Olympic Club
 Heavyweight—Bill Kerslake, Cleveland
 Team—Tulsa (Okla.) Y. M. C. A. and U. S. Army (tie), (31 pts.)

GRECO-ROMAN

114½-lb.—Dick Wilson, Toledo
 125½-lb.—Jerry Wager, Toledo
 136½-lb.—Noboru Ikeda, Japan
 147½-lb.—Bud Belz, U. S. Marines
 160½-lb.—Frank Fejes, San Francisco Olympic Club
 174-lb.—Zsolt Csiba, Portland, Ore.
 191-lb.—Frank Rosenmayr, San Francisco Olympic Club
 Heavyweight—Bill Kerslake, Cleveland
 Team—San Francisco Olympic Club (35 pts.)

National Collegiate

(At Laramie, Wyo.)

115-lb.—Dick Delgado, Oklahoma
 123-lb.—Paul Powell, Pittsburgh
 130-lb.—Les Anderson, Iowa State
 137-lb.—Paul Aubrey, Oklahoma
 147-lb.—Ron Gray, Iowa State
 157-lb.—Dick Beattie, Oklahoma State
 167-lb.—Duane Murty, Oklahoma State
 177-lb.—Gary Kurdemeier, Iowa
 191-lb.—Ken Maidlow, Michigan State
 Heavyweight—Bob Norman, Illinois
 Team—Oklahoma State (77 pts.)

JUDO

National A. A. U. Championships

(At Chicago)

130-lb.—Sumikichi Nozaki, Hollywood, Calif.
 150-lb.—Otto Chanko, Detroit
 180-lb.—John Osako, Chicago
 Heavyweight—George Harris, U. S. Air Force
 Team—Southern California (12 pts.)

U. S. Team Wins '58 Dog Derby

A United States dog team won the 1958 running of the world open sled dog derby at The Pas, Manitoba. The three-day, 1,500-mile race went to a team owned by Roy Gaddis of Cedar Rapids, Ia., and driven by Art Allen.

YACHTING**America's Cup**

(30 miles off Newport, R. I.)

Columbia, United States defender, defeated Sceptre, British challenger, 4 to 0. Columbia, owned by syndicate headed by Henry Sears. Sceptre, owned by syndicate headed by Hugh Hudson.

RESULTS

Sept. 20—1st race, windward-leeward course: Columbia, 5:13:56; Sceptre, 5:21:40. Margin, 7 min. 44 sec.
 Sept. 22—No contest, triangular course: Columbia, leading, was four miles from finish line when time expired.
 Sept. 24—2d race, triangular course: Columbia, 3:17:43; Sceptre, 3:29:25. Margin, 11 min. 42 sec.
 Sept. 25—3d race, windward-leeward course: Columbia, 3:07:07; Sceptre, 3:17:27. Margin, 8 min. 20 sec.
 Sept. 26—4th race, triangular course: Columbia, 3:04:22; Sceptre, 3:11:27. Margin, 7 min. 5 sec.

Distance Racing

Chicago to Mackinac (333 miles)—Dyna (yaw), Clayton Ewing, Green Bay, Wis.
 Newport to Bermuda (635 miles)—Finisterre (yaw), Carleton Mitchell, Annapolis, Md.
 Port Huron to Mackinac (235 miles)—Dyna (yaw), Clayton Ewing, Green Bay, Wis.
 St. Petersburg to Miami (370 miles)—Ca Va (yaw), Jake Hershey, Houston, Tex.
 Storm Trysail (Larchmont, N. Y., around Block Island to Stamford, Conn., 200 miles)—Caper (sloop), H. Irving Platt, Oyster Bay, N. Y.

International

Bermuda vs. Indian Harbor Y. C., Greenwich, Conn. (Aberfeldy Trophy, Luders 16 class sloops)—Tie (Bermuda, defender, retained trophy)
 Bermuda vs. United States, at Bermuda (Amorita Cup, International class sloops)—United States
 Bermuda vs. United States, on Long Island Sound (Amorita Cup, International class sloops)—Bermuda
 Giovanelli Gold Cup (5.5 meters, at Galveston Bay, Tex.)—Sabre, Ernst Fay, United States

Other Champions

North American men (Mallory Cup)—Robert A. Mosbacher, Texas Corinthian Y. C., Kemah, Tex.
 North American junior (Sears Bowl)—Kevin Jaffe, Noroton (Conn.) Y. C.
 North American women (Adams Trophy)—Nancy Meade, American Y. C., Rye, N. Y.
 National intercollegiate dinghy—M. I. T.
 Penguin national—Gardner Cox, Mantoloking, N. J.
 Snipe national—John Woolcott, Bridgeport, Conn.
 Snipe junior national—Ken Lipplincott, Clearwater, Fla.
 Star North American—E. W. (Skip) Etchells, Old Greenwich, Conn.
 Thistle national—John Jennings, St. Petersburg, Fla.
 Y-Flyer international—Pierre Des Jardins, Dorval, Que.
 Y-Flyer national—Billy Key, Charleston, S. C.
 Luders 16 international—Jack Vilas, Chicago
 Raven national—Charles F. Kingsley, Oyster Bay, N. Y.
 One-Ten international—Seth M. Corwin, Rye, N. Y.
 Two-Ten international—Richard A. Sullivan, Cohasset, Mass.
 Flying Dutchman North American—Harry Sindle, Lavalette, N. J.
 14-ft. Dinghy national—George O'Day, Boston
 Comet international—Edward Ryan, Jr., Shrewsbury, N. J.
 Wood Pussy national—Borden L. Hanse, Fair Haven, N. J.
 North international—Ken Klare, Miami, Fla.
 Lightning international—Henry J. Cawthra, Grosse Point, Mich.

MOTORBOATING**Major Trophy Winners**

Gold Cup—Hawaii Kai III, driven by Jack Regas, Livermore, Calif., owned by Edgar Kaiser, Oakland, Calif.
 Silver Cup—Maverick, driven by Bill Stead, Reno, Nev., owned by W. T. Waggoner, Jr., Phoenix, Ariz.
 President's Cup—Miss U. S. I., driven by Don Wilson, Detroit, owned by George Simon, Detroit

National Champions**INBOARD**

7 liter—George Byers, Columbus, Ohio
 266 hydro—Bill Ritner, Sr., Willow Grove, Pa.
 225 hydro—Henry Vogel, Webster, N. Y.
 135 hydro—Frank Neely, El Monte, Calif.
 48 hydro—F. C. (Doc) Moor, Miami, Fla.
 136 hydro—Harry Reeves, Seattle
 44 runabout—R. B. O'Connell, Jr., New Orleans
 B racing runabout—Ernie Rose, Patterson, Calif.
 Jersey speed skiff—Fred Rexon, Haddonfield, N. J.
 P. O. D. H.—Howard A. Harris, Van Nuys, Calif.

STOCK OUTBOARD

JU—Russel Wulf, Amityville, N. Y.
 AU—Dean Chenoweth, Xenia, Ohio
 BU—Paul Kalb, Monroe, Mich.
 CU—Richard Rees, Pottstown, Pa.
 DU—Skip Forcier, Grosse Point, Mich.
 36 class—Sam Still, Jr., Penns Grove, N. J.
 ASH—Dave Hoggard, Trenton, Mich.
 BSH—Harry Piner, West Palm Beach, Fla.
 CSH—Bob Brown, Miami, Fla.
 DSH—Don Baldaccini, Miami, Fla.

CANOEING**National Championships**

(At Lake Cochituate, Mass.)

1-man single—Paul Donohue, Samoset C. C., West Roxbury, Mass.
 Tandem single—R. Moran-A. Demus, Samoset C. C., West Roxbury, Mass.
 4-man single—Potomac B. C., Washington, D. C.
 1-man double—Ken Wilson, Inwood C. C., New York
 Tandem double—Russell Dermond-Greg Anderson, Yonkers (N. Y.) C. C.
 4-man double—Yonkers (N. Y.) C. C.
 1-woman double—Barbara Budrock, Yonkers (N. Y.) C. C.
 Team—Yonkers (N. Y.) C. C. (31 pts.)

ARCHERY**World Championships**

(At Brussels, Belgium)

Men—Stig Thysse, Sweden 2,101
 Women—Mrs. Sigrid Johansson, Sweden 2,053
 Men's team—Finland 5,936
 Women's team—United States (Mrs. Ann Corby, Mrs. Carole Meinhart, Ann Sevey) 6,058

United States

(At St. Paul, Minn.)

Men—Bob Bitner, Big Rapids, Mich. 3,419
 Women—Mrs. Carole Meinhart, Pittsburgh 3,637
 Men's team—Minneapolis A. C. 2,977
 Women's team—Minneapolis A. C. 2,638

U. S. Field Archery

(At Grayling, Mich.)

Men's freestyle—Joe Fries, Los Angeles 2,851
 Men's instinctive—Lon Stanton, Lake Ozark, Mo. 2,707
 Women's freestyle—Ann Marston, Wyandotte, Mich. 2,463
 Women's instinctive—Jo McCubbins, Santa Ana, Calif. 2,219

HORSE RACING

The Triple Crown

(Jockeys in parentheses)

KENTUCKY DERBY, Churchill Downs, May 3, \$125,000 added, 3 year olds, 126 pounds, 1¼ miles—1, Tim Tam (I. Valenzuela); 2, Lincoln Road (Rogers); 3, Nouredin (Combest); 4, Jewel's Reward (Arcaro); 5, Martins Rullah (McCreary); 6, Chance It Tony (Batcheller); 7, A Dragon Killer (Hansman); 8, Gone Fishin' (Neves); 9, Benedicto (Dever); 10, Ebony Pearl (Ycaza); 11, Red Hot Pistol (Dodson); 12, Silky Sullivan (Shoemaker); 13, Flamingo (Gisson); Warren G. Church, eased.

Jewel's Reward and Ebony Pearl, Maine Chance Farm entry. Benedicto and Red Hot Pistol, mutue betting field. Time—2:05. Winner, Tim Tam, owned by Calumet Farm. Winner's purse, \$116,400. Margin of victory, half length.

PREAKNESS STAKES, Pimlico, May 17, \$100,000 added, 3 year olds, 126 pounds, 13/16 miles—1, Tim Tam (I. Valenzuela); 2, Lincoln Road (Rogers); 3, Gone Fishin' (Neves); 4, Pilon (Brooks); 5, Nouredin (Combest); 6, Talent Show (Lester); 7, Jewel's Reward (Ycaza); 8, Silky Sullivan (Shoemaker); 9, Chance It Tony (Batcheller); 10, Martins Rullah (Korte); 11, Michore (Gray); 12, Liberty Ruler (DeSpirito).

Jewel's Reward and Liberty Ruler, Maine Chance Farm entry.

Time—1:57 1/5. Winner, Tim Tam, owned by Calumet Farm. Winner's purse, \$97,900. Margin of victory, 1½ lengths.

BELMONT STAKES, Belmont Park, June 7, \$100,000 added, 3 year olds, 126 pounds, 1½ miles—1, Cavan (Anderson); 2, Tim Tam (I. Valenzuela); 3, Flamingo (Guerin); 4, Nasco (Arcaro); 5, Chance It Tony (Atkinson); 6, Martins Rullah (McCreary); 7, Saferris (Woodhouse); 8, Page Seven (Keene).

Time—2:30 1/5. Winner, Cavan, owned by Joseph E. O'Connell, Boston. Winner's purse, \$73,440. Margin of victory, six lengths.

Foreign Races

Epsom Derby (England)—Hard Ridden
Grand National (England)—Mr. What
Queen's Plate (Canada)—Caledon Beau

AUTO RACING

Winners of Major Races

(Car names in parentheses)

Indianapolis 500—Jimmy Bryan, Phoenix, Ariz. (Belond AP Special), 133.791 mph

Monza (Italy) 500—Jim Rathmann, Miami, Fla. (Zink Leader Special), 166.788 mph

Sebring (Fla.) 12-Hour Grand Prix of Endurance (sports cars)—Phil Hill, Santa Monica, Calif.-Peter Collins, England (Ferrari), 86.6 mph, 1,040 miles

Le Mans (France) 24-hour endurance race (sports cars)—Phil Hill, Santa Monica, Calif.-Oliver Gendebien, Belgium (Ferrari), 107 mph, 2,511 miles

Little Le Mans, Lime Rock, Conn., 10-hour endurance race (sports cars)—Arthur Riley, Franklin Square, N. Y.-Bill Rutan, Essex, Conn. (Volvo), approx. 60 mph, 399 laps

Mille Miglia (1,000 miles), Brescia, Italy—Luigi Taramazzo-Giuseppe Gerini, Italy (Ferrari), 30.3 mph

Lime Rock (Conn.) International Open (professional sports cars, 150 miles)—George Constantine, Southbridge, Mass., (Aston-Martin), 78.838 mph

Southern 500-mile Stock Car Race, Darlington, S. C.—Glenn Roberts, Daytona Beach, Fla. (Chevrolet), 102.590 mph

1,000 Kilometers of Endurance, Nuerburging, Germany (sports cars)—Stirling Moss, England-Jack Brabham, Australia (Aston Martin), 84.5 mph

Grand Prix of America, Watkins Glen, N. Y. (sports cars, 101.2 miles)—Ed Crawford, Northfield, Ill. (Lister Jaguar) 88.4 mph.

Other U. S. Stakes Winners

Race	Winner and jockey	Win value
American Derby—Nadir (Ycaza)	\$114,600
American Handicap—How Now (Harmatz)	31,150
Arch Ward Memorial—Round Table (Shoemaker)	33,000
Argonaut Handicap—Round Table (Shoemaker)	30,500
Arlington Classic—A Dragon Killer (Combest)	101,100
Arlington Futurity—Restless Wing (Shoemaker)	100,475
Arlington Handicap—Round Table (Shoemaker)	54,100
Arlington Lassie—Dark Vintage (Heckmann)	64,000
Arlington Matron—Estacion (Combest)	32,400
Atlantic City Handicap—Munch (Grant)	39,147
Balmoral Turf Handicap—Hoop Band (Burr)	33,400
Belmont Futurity—Intentionally (Shoemaker)	80,690
Brooklyn Handicap—Cohoes (Ruane)	36,450
California Breeders—Old Pueblo (Arcaro)	39,250
Californian Stakes—Seaneen (Longden)	62,200
Carter Handicap—Bold Ruler (Arcaro)	37,620
Champagne Stakes—First Landing (Arcaro)	96,870
Citation—Better Bee (R. L. Barnett)	32,850
Coaching Club Oaks—A Glitter (A. Valenzuela)	45,792
Delaware Handicap—Endine (E. Nelson)	106,875
Del Mar Futurity—Tomy Lee (Shoemaker)	50,980
Equipoise Mile—Swoon's Son (Erb)	87,675
Flamingo Stakes—Tim Tam (Hartack)	97,800
Florida Derby—Tim Tam (Hartack)	77,900
Garden State—First Landing (Arcaro)	175,965
Gardenia—Quill (Bailey)	81,576
Gulfstream Park Hcp.—Round Table (Shoemaker)	69,800
Hawthorne Gold Cup—Round Table (Shoemaker)	73,250
Hialeah Turf Handicap—Meeting (Ruane)	71,100
Hollywood Gold Cup—Gallant Man (Shoemaker)	100,000
Jersey Stakes—Lincoln Road (Rogers)	37,865
Jockey Club Gold Cup—Inside Tract (McCreary)	52,417
John B. Campbell Mem'l.—Promised Land (I. Valenzuela)	72,645
Laurance Armour Mem'l.—Round Table (Hartack)	56,000
Lincoln Special—One-Eyed King (McCreary)	36,255
Massachusetts Hcp.—Promised Land (P. Anderson)	36,255
McLennan Handicap—Iron Liege (Hartack)	47,100
Metropolitan Handicap—Gallant Man (Shoemaker)	37,620
Michigan Mile—Nearctic (Sorensen)	40,277
Michigan Sweepstakes—Swoon's Son (Erb)	37,734
Monmouth Handicap—Bold Ruler (Arcaro)	70,772
Monmouth Oaks—A Glitter (I. Valenzuela)	36,190
New Orleans Handicap—Tenacious (Broussard)	43,400
Princess Pat Stakes—Battle Heart (Church)	71,000
Providence Stakes—Backbone (Blum)	36,988
San Antonio Handicap—Round Table (Shoemaker)	33,300
San Carlo Handicap—Seaneen (Harmatz)	37,000
San Juan Capistrano—Promised Land (I. Valenzuela)	70,000
Santa Anita Derby—Silky Sullivan (Shoemaker)	83,400
Santa Anita Handicap—Round Table (Shoemaker)	97,900
Santa Anita Maturity—Round Table (Harmatz)	80,630
Sapling Stakes—Watch Your Step (Guerin)	37,685
Saratoga Handicap—Admiral Vee (Atkinson)	36,255
Starlet Stakes—Tomy Lee (Shoemaker)	51,600
Stars and Stripes Hcp.—Terra Firma (L. C. Cook)	54,800
Suburban Handicap—Bold Ruler (Arcaro)	53,360
Sunset Handicap—Gallant Man (Shoemaker)	61,500
Travers Stakes—Piano Jim (Ussery)	29,920
United Nations Handicap—Clem (Shoemaker)	65,000
Warren Wright Memorial—Bernburgoo (Meaux)	53,900
Washington Park Futurity—Restless Wing (Shoemaker)	112,225
Washington Park Handicap—Clem (Sellers)	94,175
Washington's Birthday Hcp.—Tall Chief II (Longden)	34,200
Western—Strong Bay (Ycaza)	70,800
Widener Handicap—Oligarchy (Boulmetis)	92,800
Wood Memorial—Jewel's Reward (Arcaro)	37,575
Woodward Stakes—Clem (Shoemaker)	71,080

POLO

Source: Lillian M. Lauria, U. S. Polo Association.

National Champions**OUTDOOR**

- Open—Dallas A. C. (Dr. Raworth Williams, Dr. William Linfoot, Robert Skene, Luis Ramos)
 20-goal—Meadow Brook, N. Y. (David Ellis, Ray Harrington, Alan L. Corey, Jr., Harry A. Jerkens)
 Inter-circuit—Oklahoma (John Oxley, L. L. Linfoot, Clark Hetherington, C. R. Colee)
 12-goal—Oklahoma (John Oxley, L. L. Linfoot, Clark Hetherington, C. R. Colee)
 Paul Butler handicap—Oak Brook, Ill. (Hugo Dalmar, Delmar Carroll, Cecil Smith, Jack Murphy)

INDOOR

- 12-goal—Eastern division: Squadron A (Adalbert von Gontard, Jr., A. G. Pennell, Harry A. Jerkens); Western division: Optimists (Eugene Brown, John Ryan, Alfred Kimmel)
 Sherman Memorial—Eastern division: New Haven (Frank Butterworth III, Frank Butterworth, Jr., Jarrett H. Vincent); Western division: Ernest Lambesis, Joseph Jiambalvo, Paul Smithson, Jr.)
 Intercollegiate—Cornell (Pablo Toro, Bennet M. Baldwin, Stanley Woolaway)

CHESS

Source: American Chess Bulletin, New York

World Champions

- Men—Mikhail Botvinnik, U.S.S.R.
 Women—Elizabeth Bykova U.S.S.R.
 Junior—William Lombardy, New York
 Students (team)—U.S.S.R.

United States Champions

- Men—Bobby Fischer, Brooklyn, N. Y.
 Women—Mrs. Gisela K. Gresser, New York
 Men's open—Eldis Cobo Arteaga, Havana
 Women's open—Mrs. Kathryn Slater, New York
 Junior—Raymond Weinstein, Brooklyn, N. Y.
 Speed—Donald Byrne, Valparaiso, Ind.

Matches and Tournaments

- Amateur championship—Dr. Erich W. Marchand, Rochester, N. Y.
 British championship—Leonard W. Barden and Jonathan Penrose (tie)
 Championship of the Americas—Oscar Panno, Argentina
 Hastings international—Paul Keres, U.S.S.R.
 Madrid international—Klaus Darga, Germany
 Mar del Plata international—Bent Larsen, Denmark
 Rosenwald Trophy—Bobby Fischer, Brooklyn, N. Y.
 Canadian open—Dr. Elod Macskay, Vancouver, B. C.
 Soviet championship—Mikhail Tal, U.S.S.R.
 Spanish championship—Arthur Pomar, Spain

CHECKERS**Champions**

- World—Dr. Marion Tinsley, Columbus, Ohio
 United States—Walter Hellman, Gary, Ind.
 British—Dr. Marion Tinsley, Columbus, Ohio

Tuna Cup Unfilled

The 15th annual International Tuna Cup Match at Wedgeport, Nova Scotia, in 1958 ended as it began—with no score. Not one of the 23 anglers from the United States, Cuba, British Empire or Mexico made a catch.

SQUASH RACQUETS**United States Champions****MEN**

- Open—Roshan Khan, Pakistan
 Singles—Henri Salaun, Boston
 Doubles—Diehl Mateer-John Hentz, Philadelphia
 Team—Philadelphia
 Intercollegiate—Smith Chapman, Williams (Montreal)
 Intercollegiate team—Williams (Mass.)
 Veterans—Edward Hahn, Detroit

WOMEN

- Singles—Mrs. Pepper Constable, Princeton, N. J.
 Doubles—Mrs. Carter Simonin-Mrs. Donald Manly-Power, Philadelphia
 Senior singles—Mrs. John Carritt, Greenwich, Conn.
 Senior doubles—Mrs. Edith I. Beatty, Cynwyd, Pa.—Mrs. Charlotte Prizer, Philadelphia

Other

- British open—Hashim Khan, Pakistan
 Cowles invitation—Henri Salaun, Boston
 Canadian open—Azam Khan, Pakistan
 Canadian amateur—Henri Salaun, Boston
 British women—Janet Morgan, England
 Latham Trophy (singles)—United States 9, Canada 6
 Grant Trophy (doubles)—United States 7, Canada 0

SQUASH TENNIS

- U. S. singles—J. Lenox Porter, New York
 U. S. veterans—J. Lenox Porter, New York

RACQUETS

- U. S. singles—Clarence C. Pell Jr., New York
 U. S. doubles—Geoffrey Atkins, New York-Kenneth Wagg, England
 Tuxedo Gold Cup—Geoffrey Atkins, New York
 Canadian singles—Geoffrey Atkins, New York
 Canadian doubles—Geoffrey Atkins, New York-T. E. Price, Montreal
 North American open—Geoffrey Atkins, New York
 North American doubles—Albert Johnson, New York-Charles Pearson, Philadelphia

COURT TENNIS

- U. S. open—Albert Johnson, New York
 U. S. amateur—Northrup Knox, Buffalo, N. Y.
 U. S. amateur doubles—Northrup and Seymour Knox, Buffalo, N. Y.
 Tuxedo Gold Cup—Northrup Knox, Buffalo, N. Y.
 British amateur—Northrup Knox, Buffalo, N. Y.

LAWN BOWLING

Source: W. G. (Bill) Hay, Honorary President, American Lawn Bowling Association.

National Champions**CLOSED**

- Singles—Willis J. Tewksbury, DeLand, Fla.
 Doubles—Robert Savage-Peter Purden, Chicago L. B. C.

OPEN

- Singles—Harold L. Esch, Orlando (Fla.) L. B. C.
 Doubles—Albert Armstrong-George Clyde, Columbus Park L. B. C., Chicago
 Rinks—Chicago L. B. C. (Robert Savage, James Freeburn, Peter Gilfillan, Stewart Tulloch)

MAJOR LEAGUE BASEBALL RECORDS FOR 1958

American League
Final Standing of the Clubs

	New York	Chicago	Boston	Cleveland	Detroit	Baltimore	Kansas City	Washington	Won	Lost	Percentage	Games Behind
New York.....	—	15	13	15	10	14	13	12	92	62	.597	—
Chicago.....	7	—	12	12	10	13	12	16	82	72	.532	10
Boston.....	9	10	—	12	10	12	12	14	79	75	.513	13
Cleveland.....	7	10	10	—	14	11	10	15	77	76	.503	14½
Detroit.....	12	12	8	—	12	12	9	77	77	500	15	
Baltimore.....	8	9	10	10	—	12	15	74	79	484	17½	
Kansas City.....	9	10	10	12	10	—	12	73	81	474	19	
Washington... 10	6	8	7	13	7	10	—	61	93	.396	31	

National League
Final Standing of the Clubs

	Milwaukee	Pittsburgh	San Francisco	Cincinnati	Chicago	St. Louis	Los Angeles	Philadelphia	Won	Lost	Percentage	Games Behind
Milwaukee...	—	11	16	17	12	15	8	13	92	62	.597	—
Pittsburgh.....	11	—	12	12	13	12	14	10	84	70	.545	8
San Francisco...	6	10	—	11	10	13	16	14	80	74	.519	12
Cincinnati.....	5	10	11	—	12	12	11	15	76	78	.494	16
Chicago.....	10	9	12	10	—	7	11	13	72	82	.468	20
St. Louis.....	7	10	9	10	15	—	11	10	72	82	.468	20
Los Angeles.....	14	8	6	11	11	11	—	10	71	83	.461	21
Philadelphia... 9	12	8	7	9	12	12	—	69	85	.448	23	

THE LEADERS

American League
Batting—Ted Williams, Boston (.328); Pete Runnels, Boston (.322); Harvey Kuenn, Detroit (.319); Al Kaline, Detroit (.313); Vic Power, Cleveland (.312)
Runs batted in—Jackie Jensen, Boston (122); Rocky Colavito, Cleveland (113); Roy Sievers, Washington (108); Bob Cerv, Kansas City (104); Mickey Mantle, New York (97)
Hits—Nellie Fox, Chicago (187); Frank Malzone, Boston (185); Vic Power, Cleveland (184); Pete Runnels, Boston (183); Harvey Kuenn, Detroit (179)
Doubles—Harvey Kuenn, Detroit (38); Vic Power, Cleveland (37); Al Kaline, Detroit (34); Pete Runnels, Boston (31); Jackie Jensen, Boston (31)
Triples—Vic Power, Cleveland (10); Luis Aparicio, Chicago (9); Bill Tuttle, Kansas City (9); Jim Lemon, Washington (9); Gail Harris, Detroit (8)
Home runs—Mickey Mantle, New York (42); Rocky Colavito, Cleveland (41); Roy Sievers, Washington (39); Bob Cerv, Kansas City (38); Jackie Jensen, Boston (35)
Runs—Mickey Mantle, New York (127); Pete Runnels, Boston (103); Vic Power, Cleveland (98); Minnie Minoso, Cleveland (94); Bob Cerv, Kansas City (93)
Pitching (wins)—Bob Turley, New York (21); Bill Pierce, Chicago (17); Cal McLish, Cleveland (16); Frank Lary, Detroit (16); Dick Donovan, Chicago (15); Arnold Portocarrero, Baltimore (15); Paul Foytack, Detroit (15)
Pitching (earned run average)—Whitely Ford, New York (2.01); Billy Pierce, Chicago (2.68); Frank Lary, Detroit (2.90); Jack Harshman, Baltimore (2.90); Bill O'Dell, Baltimore (2.97)

National League
Batting—Richie Ashburn, Philadelphia (.350); Willie Mays, San Francisco (.347); Stan Musial, St. Louis (.337); Henry Aaron, Milwaukee (.326); Bob Skinner, Pittsburgh (.321)
Runs batted in—Ernie Banks, Chicago (129); Frank Thomas, Pittsburgh (109); Harry Anderson, Philadelphia (97); Orlando Cepeda, San Francisco (96); Willie Mays, San Francisco (96)
Hits—Richie Ashburn, Philadelphia (215); Willie Mays, San Francisco (208); Henry Aaron, Milwaukee (196); Ernie Banks, Chicago (193); Orlando Cepeda, San Francisco (188)
Doubles—Orlando Cepeda, San Francisco (38); Dick Groat, Pittsburgh (36); Stan Musial, St. Louis (35); Henry Aaron, Milwaukee (34); Harry Anderson, Philadelphia (34)
Triples—Richie Ashburn, Philadelphia (13); Ernie Banks, Chicago (11); Bill Virdon, Pittsburgh (11); Bob Clemente, Pittsburgh (10); Don Blasingame, St. Louis (10)
Home runs—Ernie Banks, Chicago (47); Frank Thomas, Pittsburgh (35); Frank Robinson, Cincinnati (31); Ed Mathews, Milwaukee (31); Henry Aaron, Milwaukee (30)
Runs—Willie Mays, San Francisco (121); Ernie Banks, Chicago (119); Henry Aaron, Milwaukee (109); Ken Boyer, St. Louis (101); Richie Ashburn, Philadelphia (98)
Pitching (wins)—Warren Spahn, Milwaukee (22); Bob Friend, Pittsburgh (22); Lew Burdette, Milwaukee (20); Robin Roberts, Philadelphia (17); Bob Purkey, Cincinnati (17)
Pitching (earned run average)—Stu Miller, San Francisco (2.47); Sam Jones, St. Louis (2.88); Lew Burdette, Milwaukee (2.91); Warren Spahn, Milwaukee (3.07); Robin Roberts, Philadelphia (3.27)

1958 ALL-STAR GAME

Baseball's 25th annual All-Star Game, played in Baltimore on July 8, 1958, was won by the American League, 4 to 3. A pinch-single by Gil McDougald of the New York Yankees in the sixth inning produced the winning run against the National League. A crowd of 48,829 saw the contest. The victory was the 15th in the series for the American League.

	R	H	E
National.....	2	1	0
American.....	1	1	0

Batteries—Spahn, Friend (4), Jackson (6), Farrell (7) and Crandall; Turley, Nalteski (2), Wynn (6), Odell (7) and Triandos, Berra. WP—Wynn. LP—Friend. Time of game—2:13. Attendance—48,829. Receipts (gross)—\$202,494. Receipts (net)—\$183,253.21. Managers, AL—Stengel, NL—Haney.

Two No-Hit Games in '58

Two no-hit games were recorded in the majors in 1958, both in the American League. Jim Bunning of the Detroit Tigers blanked the Boston Red Sox, 3-0, in the first game of a doubleheader in Boston on

July 20 and Hoyt Wilhelm of the Baltimore Orioles stopped the New York Yankees, 1-0, in Baltimore on Sept. 20. Bunning, 25, and Wilhelm, 35, both are right-handed pitchers.

Batting Averages

(Unofficial—200 at bats or more)

American League

	g	ab	r	h	hr	rbi	avg
Williams, Boston.....	129	411	81	135	26	85	.328
Nieman, Baltimore.....	105	366	56	119	16	60	.325
Runnels, Boston.....	147	568	103	183	8	59	.322
Kuenn, Detroit.....	139	561	73	179	8	54	.319
Harard, New York.....	103	376	45	118	11	66	.314
Kalline, Detroit.....	146	543	84	170	16	85	.313
Power, K. C.-Cleve.....	145	590	98	184	16	80	.312
Boyd, Baltimore.....	126	401	58	124	7	36	.309
Cerv, Kansas City.....	141	515	93	157	38	104	.305
Mantle, New York.....	150	519	127	158	42	97	.304
Colavito, Cleveland.....	143	489	80	148	41	113	.303
Minoso, Cleveland.....	149	556	94	168	24	80	.302
Nixon, Cleveland.....	113	376	42	113	9	46	.301
Fox, Chicago.....	155	623	81	187	0	50	.300
Siebert, New York.....	134	460	79	138	14	55	.300
Goodman, Chicago.....	116	425	42	127	4	42	.299
Wilson, Detroit.....	103	298	31	89	3	29	.299
Malzone, Boston.....	155	627	75	185	15	87	.295
Sievers, Washington.....	148	550	86	162	39	108	.295
Vernon, Cleveland.....	119	365	50	104	8	55	.293
Jensen, Boston.....	154	548	83	157	35	122	.286
Carey, New York.....	102	315	39	90	12	45	.286
Ward, Cleve.-K. C.....	129	416	50	118	10	45	.284
Doby, Cleveland.....	89	247	41	70	13	45	.283
Land, Chicago.....	142	523	72	145	15	64	.277
Gooding, Baltimore.....	133	413	57	114	15	65	.276
Williams, Baltimore.....	142	509	36	112	4	33	.275
Pearson, Washington.....	146	530	53	146	3	32	.275
Harris, Detroit.....	133	447	63	123	20	83	.275
Chiti, Kansas City.....	102	295	32	81	9	44	.275
Skowron, New York.....	126	465	61	127	14	73	.273
Lollar, Chicago.....	127	421	53	115	20	84	.273
Smith, Kansas City.....	99	315	32	86	5	46	.273
Phillips, Chicago.....	82	260	26	71	5	30	.273
Maxwell, Detroit.....	131	397	56	108	13	65	.272
Trilling, Detroit.....	154	610	91	164	14	75	.269
Bauer, New York.....	122	452	62	121	12	50	.268
Apericio, Chicago.....	146	556	76	148	2	48	.266
Berra, New York.....	122	433	60	115	22	60	.266
Kubek, New York.....	138	559	66	148	2	48	.265
Bridges, Washington.....	116	377	38	99	5	28	.263
Lopez, Kansas City.....	151	564	84	147	17	73	.261
Martyn, Kansas City.....	95	226	26	59	2	23	.261
White, Boston.....	102	328	25	85	6	35	.259
Flews, Washington.....	111	380	45	98	2	29	.258
Veal, Detroit.....	58	207	29	53	0	16	.256
Martin, Detroit.....	131	498	56	127	7	42	.255
Simpson, N. C.....	81	232	34	69	3	33	.255
Lumpe, New York.....	81	232	34	69	3	32	.254
Avila, Cleveland.....	113	376	54	95	0	30	.252
Smith, Chicago.....	139	480	60	121	12	58	.252
House, Kansas City.....	76	202	16	51	4	24	.252
Courtney, Washington.....	134	450	56	113	8	62	.251
McDougald, New York.....	138	503	69	126	14	65	.250
Lemon, Washington.....	142	501	65	123	26	75	.246
Tlandos, Baltimore.....	137	474	59	116	30	79	.245
Blonick, Baltimore.....	140	378	40	92	1	24	.243
Boone, Detroit.....	116	360	41	87	13	61	.242
Maria, Cleve.-K. C.....	160	583	87	140	28	80	.240
Robinson, Baltimore.....	145	463	31	110	3	32	.238
Buddin, Boston.....	136	497	74	118	1	46	.237
Gernert, Boston.....	122	431	60	102	20	69	.237
Piersall, Boston.....	129	417	55	99	8	48	.237
Busby, Baltimore.....	113	215	32	51	3	19	.237
Carrasquel, Cleve.-K. C.....	107	315	33	74	4	34	.235
Bertola, Detroit.....	86	240	28	56	6	27	.233
Tuttle, Kansas City.....	148	511	77	118	11	50	.231
Zachin, Washington.....	96	303	35	69	15	37	.228
Moran, Cleveland.....	116	257	26	58	1	18	.226
Gardner, Baltimore.....	134	406	55	91	3	33	.225
Yost, Washington.....	116	277	37	62	8	37	.224
Rivera, Chicago.....	139	442	32	97	8	35	.224
De Maestri, Kansas City.....	98	269	14	59	5	27	.219
Aspromonte, Bost.-Wash.....	134	271	38	59	9	25	.218
Stephens, Boston.....	101	229	35	50	7	19	.218
Harrell, Cleveland.....	105	233	19	50	6	26	.215
Chrisley, Washington.....	73	231	30	50	0	8	.212
Baxes, Kansas City.....	87	196	20	41	0	5	.209
Alvarez, Washington.....	114	275	25	56	7	33	.204
Held, K. C.-Cleve.....	108	216	15	43	1	8	.200
Miranda, Baltimore.....	98	248	28	46	2	10	.185
Hunter, K. C.-Cleve.....	98	200	15	34	3	14	.170

National League

	g	ab	r	h	hr	rbi	avg
Ashburn, Philadelphia.....	152	615	98	215	2	33	.350
Mays, San Francisco.....	152	600	121	208	29	96	.347
Musial, St. Louis.....	135	472	64	159	17	62	.337
Covington, Milwaukee.....	90	294	43	97	24	75	.330
Aaron, Milwaukee.....	153	601	109	196	30	95	.328
Skinner, Pittsburgh.....	144	529	93	170	13	70	.321
Wagner, San Francisco.....	74	220	31	70	13	35	.318
Banks, Chicago.....	154	617	119	193	47	129	.312
Cepeda, San Francisco.....	148	603	88	188	25	96	.312
Lynch, Cincinnati.....	122	420	58	131	16	68	.312
Cunningham, St. Louis.....	131	337	61	105	12	57	.312
Snider, Los Angeles.....	106	327	45	105	15	58	.312
Torre, Milwaukee.....	138	372	41	115	6	56	.309
Philley, Philadelphia.....	91	207	30	64	3	31	.309
Boyer, St. Louis.....	150	570	101	175	23	90	.307
Temple, Cincinnati.....	141	542	82	166	3	47	.306
Walls, Chicago.....	136	513	80	166	24	72	.304
H. Anderson, Philadelphia.....	140	515	80	155	23	97	.301
Groat, Pittsburgh.....	132	484	66	175	3	66	.300
Dark, St. L.-Chi.....	132	528	61	156	4	29	.295
Kluszewski, Pittsburgh.....	100	301	29	88	4	37	.292
Furillo, Los Angeles.....	123	410	54	119	18	83	.290
Clemente, Pittsburgh.....	140	519	69	150	6	50	.289
Hemus, Philadelphia.....	105	334	53	95	8	36	.284
Thomson, Chicago.....	152	547	67	155	21	82	.283
Burgess, Cincinnati.....	99	251	28	71	6	31	.283
Post, Philadelphia.....	110	379	51	107	12	62	.282
Thomas, Pittsburgh.....	149	562	89	158	35	109	.281
Green, St. Louis.....	137	442	47	124	13	65	.281
Bruton, Milwaukee.....	100	325	47	91	3	27	.280
Larker, Los Angeles.....	99	253	32	70	4	29	.277
Mazeroski, Pittsburgh.....	152	567	70	156	19	68	.275
Crowe, Cincinnati.....	111	345	31	95	7	61	.275
Adcock, Milwaukee.....	105	320	40	88	19	64	.275
Blasingame, St. Louis.....	143	547	71	150	2	36	.274
Crandall, Milwaukee.....	131	427	50	116	18	63	.272
Long, Chicago.....	142	480	68	130	20	75	.271
Jones, Philadelphia.....	117	398	52	108	14	60	.271
Roseboro, Los Angeles.....	114	384	52	104	14	43	.271
Robinson, Cincinnati.....	148	554	90	149	31	83	.269
Stuart, Pittsburgh.....	67	254	38	68	16	48	.268
Virdon, Pittsburgh.....	144	604	75	161	9	46	.267
Moryn, Chicago.....	143	512	77	137	16	60	.264
Zimmer, Los Angeles.....	122	454	52	119	6	28	.262
Schoendienst, Milwaukee.....	106	427	46	112	1	24	.262
Gilliam, Los Angeles.....	147	556	81	145	2	42	.261
Flood, St. Louis.....	121	422	50	110	10	42	.261
Hoak, Cincinnati.....	114	417	51	109	6	50	.261
Ennis, St. Louis.....	106	329	22	86	3	47	.261
Hodges, Los Angeles.....	141	474	68	123	22	64	.259
S. Taylor, Chicago.....	96	301	30	78	6	36	.259
Neuman, Chicago.....	76	201	30	62	12	29	.259
Kirkland, San Francisco.....	122	418	48	108	14	66	.258
Boucher, Philadelphia.....	95	334	55	86	9	40	.257
Spence, San Francisco.....	148	539	71	147	17	74	.256
Davenport, San Francisco.....	134	434	70	111	12	41	.256
Neal, Los Angeles.....	140	475	87	120	22	65	.253
Bell, Cincinnati.....	112	385	41	97	10	46	.252
Mathews, Milwaukee.....	149	546	97	137	31	77	.251
Bailey, Cincinnati.....	112	360	39	90	11	59	.250
Sauer, San Francisco.....	88	236	27	59	12	45	.250
Freese, Pitts.-St. L.....	79	209	29	52	7	18	.249
Lincoli, Philadelphia.....	86	258	36	64	9	33	.248
Cimoli, Los Angeles.....	108	326	35	80	9	27	.245
Schmidt, San Francisco.....	127	393	46	96	14	64	.244
Repulski, Philadelphia.....	85	238	33	53	13	40	.244
Goryl, Chicago.....	83	219	27	47	1	14	.242
Moon, St. Louis.....	108	290	36	69	9	38	.238
Whisenant, Cincinnati.....	85	203	33	48	11	40	.236
T. Taylor, Chicago.....	140	497	63	117	6	27	.235
O'Connell, San Francisco.....	107	306	44	71	3	23	.232
Fernandez, Philadelphia.....	148	522	38	120	6	51	.230
Jablonski, San Francisco.....	86	230	28	53	12	46	.230
McMillan, Cincinnati.....	145	393	49	90	1	25	.229
Kazanski, Philadelphia.....	95	289	21	66	3	36	.228
H. Smith, St. Louis.....	76	219	13	50	1	24	.228
Logan, Milwaukee.....	145	530	54	120	11	63	.226
Mantilla, Milwaukee.....	85	226	37	50	7	19	.221
Kasko, St. Louis.....	103	259	20	57	2	22	.220
Grammas, Cincinnati.....	105	216	25	47	0	12	.218
Folles, Pittsburgh.....	104	264	31	54	8	30	.205

CLUB BATTING

	ab	r	h	hr	rbi	sb	avg
New York.....	6295	769	1418	164	717	48	.268
Detroit.....	6204	669	1385	109	612	41	.266
Cleveland.....	6201	694	1340	161	653	49	.263
Chicago.....	6249	634	1348	101	593	99	.257
Boston.....	6218	697	1335	165	669	29	.256
Kansas City.....	6261	642	1297	138	606	22	.247
Baltimore.....	6113	521	1233	108	492	33	.241
Washington.....	6166	563	1240	121	524	20	.240

	ab	r	h	hr	rbi	sb	avg
Philadelphia.....	5361	664	1244	124	631	51	.266
Milwaukee.....	5225	675	1388	167	642	23	.266
Chicago.....	5289	709	1402	182	667	38	.265
Pittsburgh.....	5248	662	1386	134	626	29	.26

PITCHING RECORDS

(Unofficial—10 or more decisions)

American League

National League

	g	ip	h	bb	so	w	l	era
Hyde, Washington.....	53	103	82	35	47	10	3	1.75
Ford, New York.....	30	129	174	62	145	14	7	2.01
Duren, New York.....	44	76	40	44	87	6	4	2.01
Wilhelm, Cleve.-Balt....	38	131	95	45	92	3	10	2.27
Pierce, Chicago.....	35	245	204	66	145	17	11	2.68
Lary, Detroit.....	39	261	249	68	131	16	15	2.90
Harshman, Baltimore....	34	236	204	75	161	12	15	2.90
O'Dell, Baltimore.....	41	221	201	50	136	14	11	2.97
Turley, New York.....	33	245	173	128	168	21	7	2.98
McLish, Cleveland.....	39	226	214	70	97	16	8	2.99
Donovan, Chicago.....	34	248	240	53	127	15	14	3.01
Brown, Baltimore.....	19	97	95	20	45	7	5	3.06
Larsen, New York.....	19	114	100	51	64	9	6	3.08
Pasqual, Washington....	31	177	166	60	145	8	12	3.15
Pertocarrero, Baltimore.	32	205	172	57	89	15	11	3.25
Bell, Cleveland.....	33	182	141	73	110	12	10	3.31
Shantz, New York.....	33	126	127	34	79	7	6	3.36
DeLoach, Boston.....	31	160	155	56	82	14	8	3.38
Ditmar, New York.....	38	140	127	38	52	9	8	3.41
Foytack, Detroit.....	39	230	198	77	134	15	13	3.44
Bunning, Detroit.....	35	221	188	79	175	14	12	3.50
Herbert, Kansas City....	42	175	162	55	107	8	8	3.55
Sullivan, Boston.....	32	199	216	49	102	13	9	3.57
Moford, Detroit.....	25	110	103	42	59	4	9	3.60
Loes, Baltimore.....	32	114	106	44	44	3	9	3.63
Wall, Boston.....	52	114	109	33	64	8	6	3.63
Woodeshick, Cleveland.	14	72	71	25	26	6	6	3.63
Brewer, Boston.....	33	227	227	93	123	12	12	3.73
Grim, N. Y.-K. C.....	37	120	127	50	62	7	7	3.81
Hoot, Cleveland.....	44	204	214	104	110	10	11	3.84
Maas, K. C.-N. Y.....	32	156	142	49	70	11	8	3.87
Dickson, K. C.-N. Y....	33	119	115	43	55	10	7	3.87
Moore, Chicago.....	32	137	107	70	72	9	7	3.88
Mossi, Cleveland.....	44	102	106	30	55	7	8	3.88
Johnson, Baltimore....	26	118	116	32	68	11	9	3.88
Kucks, New York.....	34	126	132	39	47	8	8	3.93
Garver, Kansas City....	33	201	192	66	72	12	11	4.03
Pappas, Baltimore.....	31	131	135	48	72	10	9	4.07
Narleski, Cleveland.....	44	183	179	52	103	13	10	4.08
Wynn, Chicago.....	40	240	214	104	179	14	16	4.09
Hoeff, Detroit.....	36	143	148	49	94	10	9	4.15
Wilson, Chicago.....	28	156	156	63	70	9	9	4.18
Terry, Kansas City.....	40	217	217	61	134	11	13	4.23
Ramos, Washington....	43	259	277	77	128	14	18	4.24
Clevenger, Washington.	55	124	119	50	70	9	9	4.35
Tomanek, Cleve.-K. C..	54	130	130	55	91	7	8	4.50
Kemmerer, Washington	40	224	234	74	109	6	15	4.66
Valentinetti, Det.-Wash.	38	114	124	54	44	5	6	4.82
Sisler, Boston.....	30	149	157	79	71	8	9	4.95
Fornieles, Boston.....	37	111	123	33	50	4	6	4.95
Griggs, Washington....	32	137	138	74	68	3	11	5.52
Urban, Kansas City.....	30	132	150	50	55	8	11	5.93
Fischer, Chi.-Det.-Wash.	42	88	113	31	41	4	10	6.03

	g	ip	h	bb	so	w	l	era
Witt, Pittsburgh.....	18	106	78	59	82	9	2	1.61
Jay, Milwaukee.....	18	97	60	43	72	7	6	2.13
Kellner, Cincinnati.....	18	82	74	20	41	7	3	2.30
Pillar, San Francisco....	41	182	160	49	119	6	9	2.47
Pizarro, Milwaukee.....	16	97	75	47	83	6	4	2.60
Willey, Milwaukee.....	23	140	110	52	71	9	7	2.70
Jones, St. Louis.....	35	250	203	107	225	14	13	2.88
Elston, Chicago.....	60	97	75	39	79	9	8	2.88
Burdette, Milwaukee....	40	275	279	50	113	20	10	2.91
Spahn, Milwaukee.....	38	290	257	76	150	22	11	3.07
Hillman, Chicago.....	31	126	132	32	64	4	8	3.14
Roberts, Philadelphia....	35	270	270	51	129	17	14	3.27
Antonelli, San Francisco	41	242	216	87	143	16	13	3.27
Porterfield, Pittsburgh..	37	88	78	19	39	4	6	3.27
Brosnan, Chi.-St. L.....	41	167	148	79	89	11	8	3.34
Mizell, St. Louis.....	30	190	178	91	80	10	14	3.41
Rush, Milwaukee.....	28	147	140	31	83	10	6	3.43
Farrell, Philadelphia....	54	94	84	40	72	8	9	3.45
Haddix, Cincinnati.....	29	184	191	43	110	8	7	3.52
Kline, Pittsburgh.....	32	237	220	92	111	13	16	3.53
Purkey, Cincinnati.....	37	250	259	49	67	17	11	3.60
Raydon, Pittsburgh.....	31	134	119	61	85	8	4	3.63
Worthington, San Fran..	54	151	152	57	74	11	7	3.64
Friend, Pittsburgh.....	38	274	299	61	135	22	14	3.68
Jackson, St. Louis.....	49	138	211	52	124	13	13	3.68
Jeffcoat, Cincinnati....	49	75	76	26	33	6	8	3.72
Podres, Los Angeles....	39	210	208	78	141	13	15	3.73
Hobbs, Chicago.....	55	168	163	93	91	10	6	3.75
Nuxhall, Cincinnati.....	36	176	168	63	109	12	11	3.78
Semproch, Philadelphia..	36	204	211	58	91	13	11	3.93
Gross, Pittsburgh.....	40	75	67	38	59	5	7	3.93
Law, Pittsburgh.....	35	202	235	39	67	14	12	3.93
Williams, Los Angeles..	27	119	99	65	79	9	7	4.01
Grissom, San Francisco.	51	65	71	25	44	7	5	4.02
Klippstein, Cin.-L. A....	57	123	117	58	91	6	7	4.10
Labine, Los Angeles....	52	104	113	33	43	6	6	4.15
Drysdale, Los Angeles..	44	212	215	71	129	12	13	4.16
Lawrence, Cincinnati....	46	181	194	55	72	8	13	4.18
Gomez, San Francisco....	42	208	204	78	111	10	12	4.37
Simmons, Philadelphia..	29	159	196	40	73	7	14	4.39
Sanford, Philadelphia....	38	186	196	79	105	10	13	4.40
Koufas, Los Angeles....	40	159	135	102	122	11	11	4.47
Drabowsky, Chicago.....	22	126	118	73	78	9	11	4.50
Mabe, St. Louis.....	31	112	114	41	73	3	9	4.50
Briggs, Chicago.....	20	96	99	45	43	5	6	4.50
McCormick, San Fran....	42	178	193	60	81	11	8	4.60
Newcombe, L. A.-Cin....	31	168	212	36	70	7	13	4.66
Monzant, San Francisco	43	151	159	58	93	8	11	4.71
Phillips, Chicago.....	39	170	178	79	100	7	10	4.76
Muffet, St. Louis.....	35	84	107	42	40	4	6	4.93
Kipp, Los Angeles.....	40	102	105	46	56	5	6	4.94
Drott, Chicago.....	39	167	161	99	126	7	11	5.39
L. McDaniel, St. Louis..	26	109	139	31	47	5	7	5.78

CYCLING

SOCCER

Source: Otto Elsele, Racing Editor, *American Bicyclist*.

Source: Flannery News Bureau of New York.

World Championships

World Cup

(At Rheims and Paris, France)

(At Stockholm, Sweden)

PROFESSIONAL

1—Brazil; 2—Sweden; 3—France; 4—West Germany

Major U. S. Winners

Road—Erocle Baldini, Italy
 Sprint—Michel Rousseau, France
 Pursuit—Roger Riviere, France
 Motor-paced—Walter Bucher, Switzerland

National Challenge Cup—Los Angeles Kickers
 National Amateur Cup—Kutis S. C., St. Louis
 National Junior Cup—St. Paul S. C., St. Louis
 American League—Hakoah S. C., New York
 National League—United Kingdom, New York
 German-American League—German Hungarians, New York
 Lewis Cup—Philadelphia Uhrks

AMATEUR

MOTORCYCLING

Road—Gustav Schur, East Germany
 Sprint—Valentina Gasparella, Italy
 Pursuit—Norman Sheil, Great Britain

Source: L. A. Kuchler, American Motorcycle Association.

United States Amateur

National Champions

Open—Jack Disney, Pasadena, Calif.
 Mile—Jack Disney, Pasadena, Calif.
 2-mile—Jack Disney, Pasadena, Calif.
 5-mile—Phil Criswell, San Diego, Calif.
 10-mile—Jack Disney, Pasadena, Calif.
 Women's open—Maxine Conover, Kirkland Wash.

5-mile track—Carroll Resweber, Milwaukee..... 4:31.61
 10-mile track—Dick Klamforth, Groveport, Ohio.. 9:33.10
 15-mile track—Dick Klamforth, Groveport, Ohio.. 13:02.62
 20-mile track—Carroll Resweber, Milwaukee..... 14:05.12
 25-mile track—Everett Brashear, Beaumont, Tex. 18:18.39
 50-mile track—Joe Leonard, San Jose, Calif..... 34:33.00
 100-mile road—Brad Andres, San Diego, Calif.... 1:45:24.64
 200-mile road—Joe Leonard, San Jose, Calif..... 1:49:11.00
 TT-45 cu. in.—George Everrett, Pasadena, Calif... 7:27.19

Tour de France

1—Charley Gaul, Luxembourg..... 116:59.05
 2—Vito Favero, Italy..... 117:02:15
 3—Raphael Geminiani, France..... 117:02:46

1958 WORLD SERIES

New York Yankees (A.L.) defeated Milwaukee Braves (N.L.), 4 games to 3

1st Game—at Milwaukee, Wed., Oct. 1

2d Game—at Milwaukee, Thu., Oct. 2

NEW YORK (A)		MILWAUKEE (N)	
	ab		ab
Bauer, rf.	5 1 r	Schoendienst, 2b	4 0 0 0
McDougald, 2b.	4 0 2 0	Logan, ss.	4 0 1 0
Mantle, cf.	3 0 0 0	bTorre	1 0 0 0
Howard, lf.	5 0 0 0	Mantilla, ss.	3 0 0 0
Berra, c.	4 0 2 0	Mathews, 3b.	3 1 0 0
Skowron, 1b.	4 1 2 1	Aaron, rf.	4 1 1 0
Carey, 3b.	4 0 0 0	Adcock, 1b.	5 1 2 0
Kubek, ss.	4 0 0 0	Covington, lf.	4 0 0 1
Ford, p.	2 1 0 0	Crandall, c.	5 1 2 1
Duren, p.	1 0 0 0	Pafko, cf.	3 0 1 0
		aBruton, cf.	2 0 1 1
Totals.	36 3 8 3	Spahn, p.	4 0 2 1
		Totals.	39 4 10 4

aStruck out for Pafko in 9th. bPopped out for Logan in 9th.

New York.	0	0	0	1	2	0	0	0	0	—3
Milwaukee.	0	0	0	2	0	0	0	1	0	—4

E—Kubek. 2B—Logan, Berra, Aaron. HR—Skowron, Bauer. SF—Covington. LOB—New York 7, Milwaukee 11. BB, off—Spahn 4 (McDougald, Ford, Mantle 2), Ford 3 (Aaron, Mathews 2), Duren 1 (Schoendienst). SO, by—Spahn 6 (Kubek, Ford, Carey, McDougald, Skowron, Bauer), Ford 8 (Mathews 2, Aaron, Crandall, Spahn, Logan 2, Schoendienst), Duren 5 (Adcock, Crandall, Bruton, Mathews, Aaron). H, off—Ford 6 in 7 innings (faced 2 batters in 8th), Duren, 4 in 2 2/3 (two out when winning run scored). R&ER, off—Spahn 3-3, Ford 3-3, Duren 1-1. Wild pitches—Spahn, Ford. PB—Berra. LP—Duren.

Umpires—Barlick (N), plate; Berry (A), 1b; Gorman (N), 2b; Flaherty (A), 3b; Jackowski (N), rf; Umont (A), lf. Time—3:09. Paid attendance—46,367. Net receipts—\$277,263.60.

3d Game—at New York, Sat., Oct. 4

MILWAUKEE (N)		NEW YORK (A)	
	ab		ab
Bruton, cf.	3 0 0 0	Bauer, rf.	4 1 3 4
Schoendienst, 2b	4 0 2 0	Kubek, ss.	4 0 0 0
Mathews, 3b.	3 0 0 0	Mantle, cf.	2 0 0 0
Aaron, rf.	3 0 0 0	Berra, c.	4 0 0 0
Covington, lf.	3 0 1 0	Siebert, lf.	2 1 0 0
Torre, 1b.	4 0 2 0	Lumpe, 3b.	3 0 1 0
Crandall, c.	4 0 1 0	Richardson, 3b.	1 0 0 0
Logan, ss.	3 0 0 0	Skowron, 1b.	4 0 0 0
Rush, p.	2 0 0 0	McDougald, 2b.	2 1 0 0
aHanebrink	1 0 0 0	Larsen, p.	1 0 0 0
McMahon, p.	0 0 0 0	bSlaughter	0 1 0 0
cWise	1 0 0 0	Duren, p.	0 0 0 0
Totals.	31 0 6 0	Totals.	27 4 4 4

aPopped out for Rush in 7th. bWalked for Larsen in 7th. cStruck out for McMahon in 9th.

Milwaukee.	0	0	0	0	0	0	0	0	—0
New York.	0	0	0	2	0	2	0	x	—4

E—none. HR—Bauer. DP—Crandall-Torre, Duren-Kubek-Skowron. LOB—Milwaukee 10, New York 6. BB, off—Larsen 3 (Bruton 2, Aaron), Rush 5 (Mantle, Siebert 2, McDougald, Larsen), McMahon 2 (Slaughter, Mantle). SO—by Larsen 8 (Mathews 3, Aaron, Crandall 2, Rush 2), Duren 1 (Wise), Rush 2 (Kubek, Mantle), McMahon 2 (McDougald, Skowron). H, off—Larsen 6 in 7 innings, Duren 0 in 2, Rush 3 in 6, McMahon 1 in 2. R&ER, off—Rush 2-2, McMahon 2-2. Wild pitch—Duren. WP—Larsen. LP—Rush.

Umpires—Gorman (N), plate; Flaherty (A), 1b; Barlick (N), 2b; Berry (A), 3b; Umont (A), rf; Jackowski (N), lf. Time—2:42. Paid attendance—71,599. Net receipts—\$434,610.47.

Pennant Is Ninth for Stengel

The New York Yankees' pennant acquisition in the American League in 1958 was Casey Stengel's ninth in his ten years as manager of the team. The Yankees won seven of their nine World Series engagements under Stengel.

NEW YORK (A)		MILWAUKEE (N)	
	ab		ab
Bauer, rf.	4 2 r	Bruton, cf.	4 2 r
McDougald, 2b.	4 1 1 0	Schoendienst, 2b.	5 2 2 0
Mantle, cf.	3 2 2 3	Mathews, 3b.	5 2 2 2
Howard, lf.	1 0 0 1	Aaron, rf.	4 2 2 0
Siebert, lf.	3 0 1 0	Covington, lf.	4 1 3 2
Berra, c.	4 0 1 0	bMantilla	0 1 0 0
Skowron, 1b.	4 0 0 0	Pafko, lf.	0 0 0 1
Carey, 3b.	2 0 0 0	Torre, 1b.	5 0 0 1
cSlaughter	1 0 0 0	Crandall, c.	2 1 0 1
Richardson, 3b.	1 0 0 0	Logan, ss.	4 1 1 2
Kubek, ss.	3 0 0 0	Burdette, p.	4 1 1 3
Turley, p.	0 0 0 0		
Maas, p.	0 0 0 0	Totals.	37 13 15 13
Kucks, p.	1 0 1 0		
aLumpe	1 0 0 0		
Dickson, p.	0 0 0 0		
dThroneberry	1 0 0 0		
Monroe, p.	0 0 0 0		
Totals.	33 5 7 5		

aFiled out for Kucks in 5th. bRan for Covington in 7th. cGrounded out for Carey in 8th. dStruck out for Dickson in 8th.

New York.	1	0	0	1	0	0	0	3	—5
Milwaukee.	7	1	0	0	0	2	3	x	—13

E—Mathews. 2B—Schoendienst 2, Mathews. HR—Bruton, Burdette, Mantle 2, Bauer. SB—Mathews. SF—Crandall, Pafko. DP—Schoendienst-Logan-Torre, Logan-Schoendienst-Torre. LOB—New York 2, Milwaukee 5. BB, off—Burdette 1 (Mantle), Turley 1 (Aaron), Maas 1 (Crandall), Monroe 1 (Bruton). SO, by—Burdette 6 (Carey 1, Mathews, Dickson 1, Throneberry), Turley 1 (Mathews), Dickson 1 (Crandall), Monroe 1 (Burdette). H, off—Turley 3 in 1/3 Inning, Maas, 2 in 1/3, Kucks 3 in 3 1/3, Dickson 4 in 3, Monroe 3 in 1. R&ER, off—Burdette 5-4, Turley 4-4, Maas 3-3, Kucks 1-1, Dickson 2-2, Monroe 3-3. LP—Turley.

Umpires—Berry (A), plate; Gorman (N), 1b; Flaherty (A), 2b; Barlick (N), 3b; Jackowski (N), rf; Umont (A), lf. Time—2:43. Paid attendance—46,367. Net receipts—\$277,263.60.

4th Game—at New York, Sun., Oct. 5

MILWAUKEE (N)		NEW YORK (A)	
	ab		ab
Schoendienst, 2b	5 1 1 0	Siebert, lf.	3 0 0 0
Logan, ss.	5 1 1 0	McDougald, 2b.	4 0 0 0
Mathews, 3b.	4 0 1 1	Bauer, rf.	4 0 0 0
Aaron, cf, rf.	4 0 2 0	Mantle, cf.	4 0 1 0
Adcock, 1b.	3 0 0 0	Skowron, 1b.	3 0 1 0
bTorre, 1b.	1 0 0 0	Berra, c.	3 0 0 0
Crandall, c.	3 1 2 0	Richardson, 3b.	2 0 0 0
Covington, lf.	0 0 0 0	aHoward	1 0 0 0
cBruton	0 0 0 0	Carey, 3b.	0 0 0 0
Pafko, rf, lf.	4 0 1 0	Kubek, ss.	2 0 0 0
Spahn, p.	4 0 1 1	dSlaughter	0 0 0 0
		Dickson, p.	0 0 0 0
Totals.	36 3 9 2	Ford, p.	1 0 0 0
		Kucks, p.	0 0 0 0
		eLumpe, ss.	1 0 0 0
		Totals.	29 0 2 0

aCalled out on strikes for Richardson in 7th. bPopped out for Adcock in 8th. cRan for Covington in 8th. dCalled out on strikes for Kubek in 8th. ePopped out for Kucks in 8th.

Milwaukee.	0	0	0	0	1	1	0	—3
New York.	0	0	0	0	0	0	0	—0

E—Kubek. 2B—Aaron, Pafko, Logan, Mathews. 3B—Mantle, Schoendienst. DP—McDougald-Kubek-Skowron. LOB—Milwaukee 8, New York 4. BB, off—Ford 1 (Crandall), Kucks 1 (Covington), Spahn 2 (Siebert, Ford). SO, by—Ford 6 (Mathews, Aaron, Spahn 2, Adcock, Covington), Spahn 7 (McDougald, Ford, Siebert 2, Mantle, Howard, Slaughter). H, off—Ford 8 in 7 innings (faced two batters in 8th), Kucks 1 in 1, Dickson 0 in 1. R&ER, off—Ford 3-2. Wild pitch—Ford. LP—Ford.

Umpires—Flaherty (A), plate; Barlick (N), 1b; Berry (A), 2b; Gorman (N), 3b; Umont (A), rf; Jackowski (N), lf. Time—2:17. Paid attendance—71,563. Net receipts—\$434,479.07.

5th Game—at New York, Mon., Oct. 6

MILWAUKEE (N) NEW YORK (A)

no.	3	ad	2	h	rd	no.	3	ad	2	h	rd
Bruoton, cf.	3	0	0	0	0	Bauer, rf.	4	1	1	0	0
Schoendienst, 2b	3	0	0	1	0	Lumpe, 3b.	3	0	1	0	0
Mathews, 3b.	4	0	1	0	0	Richardson, 3b	1	0	0	0	0
Aaron, rf.	4	0	0	0	0	Mantle, cf.	3	1	2	0	0
Covington, lf.	4	0	1	0	0	Berra, c.	4	1	1	1	0
bWise.	0	0	0	0	0	Howard, lf.	3	1	0	0	0
Torre, 1b.	3	0	0	0	0	Showman, 1b.	4	1	1	3	0
Connally, c.	3	0	0	0	0	McDougal, 2b.	4	2	0	1	0
Lombardi.	3	0	0	0	0	Kubek, ss.	4	0	1	0	0
Burdette, p.	2	0	0	0	0	Turley, p.	3	0	1	2	0
Pizarro, p.	0	0	0	0	0						
aHanebrink.	1	0	0	0	0	Totals.	33	7	10	7	0
Wiley, p.	0	0	0	0	0						
Totals.	30	0	5	0	0						

aFouled out for Pizarro in 8th. bRan for Covington in 9th.

Milwaukee.....	0	0	0	0	0	0	0	0	0-0
New York.....	0	0	1	0	0	6	0	0	x-7

E—none. 2B—Berra, McDougald. HR—McDougald.
S—Schoendienst. DP—Mathews-Torre, Howard-

McDougald-Skownon. LOB—Milwaukee 7, New York 4. BB, off—Turley 3 (Bruton, Torre, Crandall). Burdette 1 (Howard), Pizzaro 1 (Mantle). SO, by—Turley 10 (Crandall, Logan 2, Burdette, Bruton, Mathews, Covington 2, Aaron 2), Burdette 4 (Bauer, Mantle, Kubek, Lumpe), Willey 2 (Skownon, McDougald). H, R—Burdette 8 in 5 1/3 Innings, Pizarro 2 in 1 2/3, Willey 0 in 1. R&ER, off—Burdette 6-6, Pizarro 1-1. Wild pitch—Burdette. LF—Burdette.
 (N), 2b; Flaherty (A), 3b; Umont (A), rf; Jackowski (N), lf. Time 2:19. Paid attendance—65,279. Net receipts—\$419,079.09.

7th Game—at Milwaukee, Thu., Oct. 9

NEW YORK (A) MILWAUKEE (N)

Bauer, rf.	5	5	6	8	6	Schoendienst, 2b	5	5	6	8	6
McDougald, 2b.	5	5	6	8	6	Bruton, cf.	5	5	6	8	6
Mantle, cf.	4	0	1	0	0	Torre, 1b.	4	0	1	0	0
Evers, c.	3	2	2	1	0	Aaron, rf.	4	0	1	0	0
Howard, lf.	3	2	2	1	0	Covington, lf.	4	0	1	0	0
Lumpe, 3b.	3	0	0	0	0	Mathews, 3b.	1	0	0	0	0
Carey, 3b.	1	1	1	0	0	Crandall, c.	4	1	1	1	0
Skowron, 1b.	4	1	2	4	0	Logan, ss.	4	0	0	0	0
Kubek, ss.	2	0	0	1	0	Burdette, p.	3	0	0	0	0
Larsen, p.	1	0	0	0	0	McMahon, p.	1	0	0	0	0
Turley, p.	2	0	0	0	0	aAdcock	0	0	0	0	0
						bMontali	0	0	0	0	0
Totals.	34	6	8	6	6	Totals.	30	2	5	2	2

aSingled for McMahon in 9th. bRan for Adcock in 9th

New York.....	0	2	0	0	0	0	0	4	0—6
Milwaukee.....	1	0	0	0	0	1	0	0	0—2

E—Torre 2. 2B—McDougald, Berra. HR—Crandall, Skowron. SB—Howard. S—Torre. SF—Kubek. DP—

McDougald-Skownen. LOB—New York 7, Milwaukee 8. BB, off—Burdette 2 (Berra, Kubek), McMahon 1 (Mantle, Larsen 3 (Bruton, Aaron, Mathews, Turley) (Mathews 2, Torre). SO, by—Burdette 3 (Howard, Mantle, Kubek), McMahon 2 (Turley, Bauer), Larsen 1 (Crandall). Turley 2 (Burdette, Bruton). H, off—Burdette 7 in 8 innings; McMahon 1 in 1, Larsen 3 in 2 1/3, Turley 2 in 6 2/3. R&E off—Burdette 6-4, Larsen 1-0, Turley 1-0. WP—Turley. LP—Burdette. Stolen Bases—Gorman (N), plate; Flaherty (A), 1b; Barlick (N), 2b; Berry (A), 3b; Jackowski (N), rf; Umont (A), lf. Time—2:31. Paid attendance—46,367. Net receipts—\$277,263.60.

6th Game—at Milwaukee, Wed., Oct. 8

NEW YORK (A) MILWAUKEE (N)

Carey, 3b.	5	5	1	0	0	Schoendlenst, 2b	4	1	2	0
McDougald, 2b.	1	2	1	0	0	Logan, ss.	2	1	0	0
Bauer, rf.	1	2	1	0	0	Mathews, 3b.	5	0	0	0
Mantle, cf.	5	5	1	1	0	Aaron, rf.	5	0	3	2
Lward, lf.	5	5	1	2	0	Adcock, 1b.	4	0	1	0
Berra, c.	4	0	1	0	0	cMantle, c.	4	0	0	0
Skowron, 1b.	4	0	1	1	0	Crandall, c.	4	0	0	0
Kubek, ss.	2	0	0	0	0	dTorre.	1	0	0	0
aSLaugher.	1	0	0	0	0	Covington, lf.	4	1	2	0
Duren, p.	2	0	0	0	0	Pafko, cf.	2	0	1	0
Turley, p.	0	0	0	0	0	Bruton, cf.	2	0	0	0
Ford, p.	1	0	0	0	0	Spahn, p.	4	0	1	1
lumar, p.	1	0	0	0	0	McMahon, p.	0	0	0	0
bLumpe, ss.	1	0	0	0	0					
Totals.	41	4	10	4		Totals.	37	3	10	3

aGrounded out for Kubek in 6th. bStruck out for Dittmar in 6th. cRan for Adcock in 10th. dPopped out for Crandall in 10th.

New York.....	1	0	0	0	0	1	0	0	0	2-4
Milwaukee.....	1	1	0	0	0	0	0	0	0	1-3

E—Schoendienst, Logan 2, Ditmar, Bruton. 2B—Schoendienst. HR—Bauer, McDougald. S—Logan 2.

5F-Berra, DP Howard-Berra, Crandall-Schoendietz, Logan 2.
LOB-New York 10, Milwaukee 9. BB, off-Spahn
(Skowron, Lumpe), Ford 1 (Schoendietz), Duren 2
(Adcock, Logan). SO, by-Spahn 5 (Kubek, Lumpe,
Howard, Duren, Carey), McMahon 1 (Duren), Ford 2
(Mathews, Crandall), Dittmar 2 (Crandall, Spahn),
Duren 8 (Adcock, Crandall, Bruton 2, Spahn 2, Cov-
ington, Mathews). H, off-Spahn 9 in 9 2/3 innings,
McMahon 1 in 1/3, Ford 5 in 1 1/3, Dittmar 2 in 3 2/3,
Duren 3 in 4 2/3, Turley 0 in 1/3. R&ER, off-Spahn
4-4. W-L, 1-0. Win, 1. W-L, 1-0. Win, 1.
Umpires-Berry (A), plate; Gorman (N), rf; Flanagan
(A), 2b; Barlick (N), 3b; Jackowski (N), 1b; Umont (A)
lf. Time-3:07. Paid attendance-46,367. Net re-
sults-\$277,263.60.

World Series Batting Records

	NEW YORK										
	g	ab	r	h	2b	3b	hr	rbl	bb	so	avg
Bauer, rf	7	31	6	10	0	0	4	8	0	5	.323
McDonald, 2b . . .	7	28	6	9	2	0	2	4	2	4	.321
Mantle, cf	7	24	4	6	0	1	2	3	7	4	.250
Berra, o	7	27	3	6	3	0	0	2	1	0	.222
*Howard, lf	6	18	4	4	0	0	0	2	1	4	.222
Siebert, lf	3	8	1	1	0	0	0	0	3	2	.125
Skowron, 1b	7	27	3	7	0	0	0	2	7	1	.259
Carey, 3b	5	12	1	1	0	0	0	0	0	3	.083
*Slaughter	4	3	1	0	0	0	0	0	1	0	.000
*Richardson, 3b . .	4	5	0	0	0	0	0	0	1	1	.000
Kubek, ss	7	25	1	0	0	0	0	1	1	7	.048
*Lumpe, 3b, ss . . .	6	12	0	2	0	0	0	0	1	2	.167
Ford, p	3	4	1	0	0	0	0	0	2	2	.000
Duren, p	3	3	0	0	0	0	0	0	0	2	.000
Turley, p	4	6	0	1	0	0	0	2	0	1	.200
Maas, p	1	0	0	0	0	0	0	0	0	0	.000
Kucks, p	2	1	0	1	0	0	0	0	0	0	1.000
Dickson, p	2	0	0	0	0	0	0	0	0	0	.000
Throneberry	1	0	0	0	0	0	0	0	0	0	.000
Monroe, p	1	0	0	0	0	0	0	0	0	0	.000
Larsen, p	2	2	0	0	0	0	0	0	1	0	.000
Ditmar, p	1	1	0	0	0	0	0	0	0	0	.000
Totals	7	233	29	49	5	1	10	29	21	42	.210

[illegible]

Totals.....	7 240	25	60	10
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393,909 Saw Seven Series Games

The second largest paid attendance for a World Series and the second biggest total for net gate receipts were recorded in 1958. Attendance for the seven games between the New York Yankees and the Milwaukee Braves was 393,909 and net receipts \$2,397,-223.03. Records in both categories were set in 1957 when 394,712 saw the same teams in action. Receipts that year amounted to \$2,475,978.94.

MINOR LEAGUE BASEBALL

JUNIOR WORLD SERIES

Minneapolis (American Association) defeated Montreal (International League), 4 games to 0

DIXIE SERIES

Birmingham (Southern Association) defeated Corpus Christi (Texas League), 4 games to 2

CLASS AAA

American Association

FINAL STANDING OF THE CLUBS

	W	L	Pct		W	L	Pct
Charleston...	89	62	.589	Omaha.....	80	74	.519
Wichita.....	83	71	.539	Indianapolis..	72	82	.468
*Minneapolis..	82	71	.536	St. Paul.....	70	84	.455
Denver.....	78	71	.523	Louisville....	56	95	.371

* Won playoffs.

THE LEADERS

BA—Gordon Windhorn, Denver.....	.328
HR—Johnny Callison, Indianapolis.....	.29
RBI—Earl Hersh, Wichita.....	.98
Pitching (wins)—John Gabler, Denver.....	.19
Pitching (ERA)—Jerry Davis, Charleston.....	2.45

International League

FINAL STANDING OF THE CLUBS

	W	L	Pct		W	L	Pct
*Montreal.....	90	63	.588	Miami.....	75	78	.490
Toronto.....	87	65	.572	Richmond.....	71	82	.464
Rochester.....	77	75	.507	Buffalo.....	69	83	.454
Columbus.....	77	77	.500	Havana.....	65	88	.425

* Won playoffs.

THE LEADERS

BA—Rocky Nelson, Toronto.....	.326
HR—Rocky Nelson, Toronto.....	.43
RBI—Rocky Nelson, Toronto.....	.120
Pitching (wins)—Tom LaSorda, Montreal.....	.18
Pitching (ERA)—Bob Tiefenauer, Toronto.....	1.89

Pacific Coast League

FINAL STANDING OF THE CLUBS

	W	L	Pct		W	L	Pct
Phoenix.....	89	65	.578	Salt Lake City	77	77	.500
San Diego.....	84	69	.549	Sacramento..	71	83	.461
Vancouver.....	79	73	.520	Spokane.....	68	85	.444
Portland.....	78	76	.506	Seattle.....	68	86	.442

THE LEADERS

BA—Andre Rodgers, Phoenix.....	.354
HR—Jim McDaniel, Salt Lake City.....	.37
RBI—Jim McDaniel, Salt Lake City, and Dusty Rhodes, Phoenix.....	100
Pitching (wins)—Art Fowler, Seattle-Spokane, and Marshall Bridges, Sacramento.....	.16
Pitching (ERA)—George Bamberger, Vancouver.....	2.45

CLASS AA

League and champion	Playoff winner
Mexican—Neuvo Laredo.....	No playoffs
Southern Assn.—Birmingham.....	Birmingham
Texas—Fort Worth.....	Corpus Christi

CLASS A

Eastern—Lancaster.....	Binghamton
South Atlantic—Augusta.....	Macon
Western—Colorado Springs.....	No playoffs

CLASS B

Carolina—Danville.....	Burlington
Northwest—Lewiston (1st half); Yakima (2d half).....	Yakima
Three-I—Davenport (1st half); Cedar Rapids (2d half).....	Cedar Rapids

CLASS C

Arizona-Mexico—Douglas.....	No playoffs
California—Bakersfield.....	Fresno
Northern—St. Cloud.....	Fargo-Moorhead
Pioneer—Great Falls (1st half); Boise (2d half).....	Boise

CLASS D

Alabama-Florida—Selma.....	Dothan
Appalachian—Johnson City.....	No playoffs
Florida State—St. Petersburg (both halves).....	No playoffs
Georgia-Florida—Valdosta (1st half); Albany (2d half).....	Valdosta
Midwest—Michigan City (1st half); Waterloo (2d half).....	Waterloo
Nebraska State—North Platte.....	No playoffs
New York-Penn—Wellsville.....	Geneva
Sophomore—Midland (Eastern Div.); Artesia (Western Div.).....	Midland

Other Baseball Champions

National Baseball Congress—Drain (Ore.) Black Sox
 National Collegiate A. A.—Southern California
 American Legion—Robert E. Bentley Post, Cincinnati
 National Amateur Federation—Lundquist Insurance, Detroit
 National Amateur Federation Juniors—Kittle Pontiac, Memphis, Tenn.
 Little League—Monterrey, Mexico
 Hearst Sandlot Classic—New York City All-Stars
 Babe Ruth League—Charlotte, N. C.
 Colt League—North San Diego, Calif.
 P-O-N-Y League—Miami, Fla.
 P-O-N-Y League Grads—Miami, Fla.
 All-American Amateur Assn.—Milford, Mass.
 V. F. W. Teener—Bossier City, La.
 Connie Mack American Amateur Congress—Yonkers (N. Y.)
 Haveys
 Caribbean World Series—Cuba
 World Junior—Dominican Republic
 Europe—Netherlands

SOFTBALL

World Champions

(Amateur Softball Association)

Men—Stratford (Conn.) Raybestos Cardinals
 Women—Stratford (Conn.) Raybestos Brakettes
 Men's slow pitch—East Side Sporting Goods, Detroit
 Women's slow pitch—Pearl Laundry Pollyannas, Richmond, Va.

Musial Gets 3,000th Hit

A double by Stan Musial of the St. Louis Cardinals on May 13, 1958, against the Chicago Cubs was his 3,000th major league hit. He became the eighth big league player to achieve that many safeties. Others were Ty Cobb, Tris Speaker, Honus Wagner, Eddie Collins, Nap Lajoie, Paul Waner, and Cap Anson. Cobb leads the list with 4,191 hits.

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We have endeavored to prepare the INDEX for easy use by professional researchers and the average Mr. and Mrs. Public. This goal presents many difficulties and we modestly hope we have succeeded. Where we have failed we would appreciate your help. If you cannot find anything quickly and you think it's our fault, kindly send suggestions and criticisms to:

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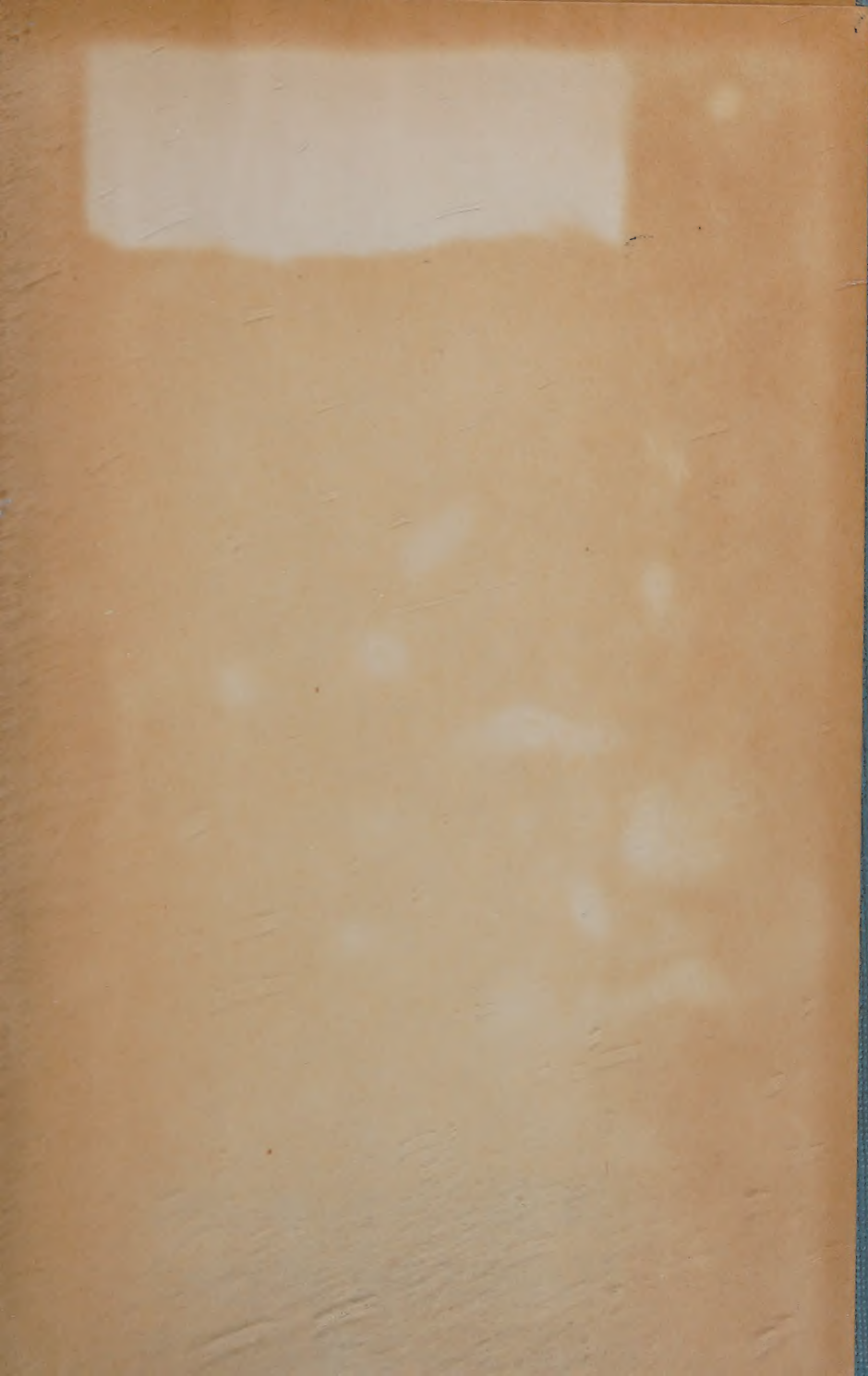
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